GRAIN TRADE AUSTRALIA

Section 2 - WHEAT STANDARDS

2010/11 SEASON

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SECTION 1 INTRODUCTION

General

Since 1999 Grain Trade Australia (previously NACMA) has on an annual basis reviewed, produced and published on behalf of industry Wheat Standards (Standards) through its Standards Committee (Committee).

In order to provide a consistent message to both domestic industry and international buyers, Grain Trade Australia (GTA) encourages input into development of these Standards. Additionally, we urge industry to use the Standards contained within this Manual as applicable when buying and trading Australian wheat.

Considerations to the Standards

This section of the Manual relating to wheat has been produced following the annual review by GTA of Standards. There are various sections of this Manual relating to Standards and associated procedures and industry is encouraged to take account of all relevant sections when applying these Standards to wheat bought and traded domestically or internationally.

The Grades referred to in this document are a combination of:

- Grades commonly introduced across the country on an annual basis and are generally the same in each State where wheat is grown or traded

- Grades that may not be introduced every season or only introduced in a regional area. These grades may be created for various reasons including to meet the specific quality requirements of a customer, as specific varietal segregations or to deal with specific quality issues with harvested grain in a localised area

Industry should note the list of Grades in this Manual is not exhaustive.

Variations to Standards

Whilst the information in this Manual is current at time of publication, you will need to monitor the GTA Member Updates, the GTA website (www.graintrade.org.au) and other applicable information to ensure that you are aware of the changes to the Standards and the impact on your own trading arrangements.

Varieties

Approved and recommended varieties to be grown and acceptable within each grade are listed within this document. The approval of each variety within a grade is determined by a group external to GTA.

Variety integrity and correct variety assessment is an integral part of the grain classification and Standards application process. GTA endorses the varietal classifications as listed in this Manual and encourages all industry to follow the approved varietal list as listed in this Manual where relevant.

Changes to varietal classifications may occur at any time during the season following the publication of this Manual. As these changes will not necessarily be included in this Manual industry should implement their own procedures for monitoring the varietal classification process.

Timing of Standards Development

The Standards outlined in this Manual are applicable for the entire season of 2010/11. Standards apply to grain assessed as per these Standards from 1 August 2010 to 31 July 2011.

SECTION 2 DEFINITIONS

As Is

In terms of sample assessment, is the representative sample as taken from the load tendered for delivery without any interference to the sample. That is, there has been no cleaning or screening of the sample prior to analysis. The sample may also be referred to as a “dirty” sample.

Bread Wheat

This refers to those wheats of bread making varieties (*Triticum aestivum*) which contaminate durum deliveries, and for which a specific tolerance applies. Bread wheat can be visually distinguished from durum by the fine hairs on the brush end which are usually only associated with bread wheat varieties.

Cereals

In the context of these Standards, cereals refer to wheat, barley, oats, cereal rye, triticale, sorghum, maize and rice.

Cereal Smuts

Cereal Smuts include all smuts on all cereal grains. This includes but is not limited to:

Ball Smut

Are those infected by the spores of the fungus *Tilletia caries*. They have the appearance of pale, plump, slightly oversized grains. These grains are easily crushed between the fingers and contain a mass of black powder (spores) with a distinctive rotten egg smell. This may also be called Stinking Smut or Bunt.

Covered Smut

Covered smut is caused by various fungi of the *Ustilago spp.*

Loose Smut

Loose smut is the result of the fungus *Ustilago tritici* developing in the head during the growing phase. The tolerance applies to the number of blackened pieces of backbone in the sample.

A nil tolerance applies to all smuts in cereal kernels.

Chemicals not Approved for Wheat

Refers to the following:

- Chemicals used on the growing crop in the State or Territory where the wheat was grown in contravention of the label
- Chemicals used on stored wheat in contravention of the label
- Chemicals not registered for use on wheat
- Wheat containing any artificial colouring, pickling compound or marker dye commonly used during crop spraying operations that has stained the wheat
- Wheat treated with or contaminated by Carbaryl, Organochloride chemicals, or diatomaceous earth

- Chemical residues in excess of Australian Commonwealth, State or Territory legal limits (see Maximum Residue Limit and National Residue Survey)

For further information on this topic, refer to the document “Australian Grains Industry Post Harvest Chemical Usage Recommendations and Outturn Tolerances 2009/10” - see GTA website www.graintrade.org.au.

Clean Seed Basis

For the purposes of assessment of various defective grains, clean seed includes all wheat seed remaining above the screen following the Screening process.

Contaminants

Contaminants are defined individually in these Standards and consist of the following:

- Bread wheat (in durum deliveries only)
- Cereal Ergot
- Chemicals not Approved for Wheat
- Chemicals in excess of the MRL
- Earcockle
- Earth
- Foreign Seeds
- Insects – Large
- Insects – Small
- Loose Smut
- Objectionable Material
- Other Non-Objectionable Material
- Pickling Compounds
- Ryegrass Ergot
- Sand
- Snails
- Stored Grain Insects and Pea Weevil – Live

Contaminants may be referred to as foreign material, being all material other than whole or broken seeds or hulls of the wheat being assessed.

Defective Grains

Defective grains refer to wheat that has been damaged to some degree, as outlined in these Standards. They include the following:

- Dry Green or Sappy
- Field Fungi
- Frost Damaged
- Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted
- Insect Damaged
- Non vitreous kernels (Durum only)
- Over-Dried Damaged
- Pink Stained
- Smut
- Sprouted
- Stained
- Takeall Affected

An individual kernel may have more than one defect.

Dry Green or Sappy

Dry Green refers to green grains arising from harvesting of grain before it has matured. Dry Green grains are those whose surface is distinctively green or those grains when cut show an intense green colour in the cross-section. Dry green grains are usually dry and hard.

Sappy grains are those that have been harvested before maturity. Sappy grains are generally soft when pressed. They may or may not be green. Any level of sappiness is classified as defective.

Durum

Durum includes grains of the species *Triticum durum.*

Vitreous

Vitreous in the context of durum includes grains of a uniform colour which are bright and semi translucent in appearance and which exhibit no trace of mottling. Frost Damaged grains, Dry Green grains, grains of other cereals and grains of the species *Triticum aestivum* are also not considered to be vitreous grain for the purposes of this definition. Grains that display any signs of sprouting are not automatically classified as non vitreous. Instead, these grains are classified depending on their appearance.

Mottled

Mottled grains in the context of durum are those that contain opaque, starchy areas within an otherwise vitreous grain. Mottled areas are normally of a dull yellow appearance and are easily identified visually against the amber coloured background of the otherwise vitreous grain.

Non Vitreous

Non vitreous grains in the context of durum include Mottled grains, Frost Damaged grains, Dry Green grains, grains of other cereals and grains of the species *Triticum aestivum*. Grains are assessed as non vitreous irrespective of the size of any mottled area that may be present. Grains that are entirely starchy and opaque are non vitreous.

Bleached

Bleached in the context of durum are those grains that have become dull and pale, or “washed out in appearance” as a result of pre harvest weather damage. These grains may appear opaque and therefore non vitreous however this may be purely an external effect. Bleached grains may still be classified as vitreous providing there is no evidence of mottling.

Earcockle

Earcockles are darkened seed-like nematode galls. These galls displace kernels in diseased heads and are caused by infection from the nematode *Anguina tritici.* The tolerance applies to the number of galls in the sample.

Earth

Earth is defined as a clod of dirt, being 5mm or less in diameter.

Ergot

Ergot is a purplish black fungal body, which contaminates cereal and ryegrass kernels when they are infected by the fungus *Claviceps purpurea.*

Ryegrass Ergot

Ryegrass ergot is *Claviceps purpurea* infection of ryegrass kernels. Tolerances are defined in terms of overall length in cm when pieces found in the sample are aligned end on end.

Cereal Ergot

Cereal ergot is *Claviceps purpurea* infection of any cereal kernels. Tolerances are defined in terms of the total number of pieces or whole affected kernels of any cereal found in the sample.

Falling Number

Falling Number is a grain quality test which measures the degree of weather damage in wheat and is based on the unique ability of alpha amylase (an enzyme released during seed germination) to liquefy a starch gel. Strength of the enzyme is measured by Falling Number defined as the time in seconds required to stir plus the time it takes to allow the stirrer to fall a measured distance through a hot aqueous flour or meal gel undergoing liquefaction.

The Falling Number test is an alternative to visual assessment for sprouted grains, and always overrides the visual grain assessment.

Field Fungi

Field Fungi refers to individual kernels where the seed coat is greater than 50 percent discoloured with a mouldy substance caused by the development of fungi during periods of high moisture (Grains that are 50 percent or less discoloured are to be classified as Stained. Grains that are soft and/or emit a mouldy odour are to be classified as Rotted). The visible discolouration of affected grains can vary from white, to grey to black in colour.

Field Fungi grains include those affected by Head Scab, which is caused by the fungus *Gibberella zeae* (also called *Fusarium graminearum)* and those affected by White Grain Disorder, caused by the fungus *Botryosphaeria spp.*

Foreign Seeds

Foreign Seeds are defined as seeds of any plant, other than the species of crop being tendered for delivery. Foreign Seeds are classified into two broad groups; those with specific tolerances listed in the Standards, and those without. The latter are termed “Small Foreign Seeds”.

Seeds with specific tolerances have been categorised into several groups. These are:

Type 1

Colocynth *(Citrullus colocynthis)*
Double Gees / Spiny Emex / Three Cornered Jack *(Emex australis*)
Jute *(Corchorus olitorius*)
Long Head Poppy *(Papaver dubium*)
Mexican Poppy *(Argemone mexicana*)
Opium Poppy *(Papaver somniferum*)
Poppy (Field) *(Papaver rhoeas)*
Poppy (Horned) *(Glaucium flavum)*
Wild Poppy *(Papaver hybridum)*
Parthenium Weed *(Parthenium hysterophorus*)
New Zealand Spinach *(Tetragonia tetragonoides)*

Type 2

Branched Broomrape *(Orobanche ramosa*)
Castor Oil Plant *(Ricinus communis)*

Coriander *(Coriandrum sativum*)
Crow Garlic/Wild Garlic *(Allium vineale*)
Darling Pea *(Swainsona spp*)
Peanut seeds and pods *(Arachis hypogaea)*
Ragweed *(Ambrosia sp)*
Rattlepods *(Crotalaria sp)*
Starburr *(Acanthospermum hispidum*)
St. Johns Wort *(Hypericum perforatum)*

Type 3a

Bathurst Burr *(Xanthium spinosum*)
Bulls Head / Caltrop / Cats Head *(Tribulus terrestris*)
Cape Tulip *(Homeria spp)*
Cottonseed *(Gossypium spp*)
Dodder *(Cuscuta spp*)
Noogoora Burr *(Xanthium pungens*)
Thornapple *(Datura spp)*

Type 3b

Vetch (Commercial) *(Vicia spp)*
Vetch (Tare) *(Vicia sativa*)

Type 3c

Heliotrope (Blue) *(Heliotropium amplexicaule*)
Heliotrope (Common) *(Heliotropium europaeum)*

Type 4

Bindweed (Field) *(Convolvulus arvensis*)
Cutleaf Mignonette seeds or pods *(Reseda lutea)*
Darnel (Drake Seed) *(Lolium temulentum*)
Hexham Scent / King Island Melilot *(Melilotus indicus)* only acceptable if no tainting odour is present
Hoary Cress *(Cardaria draba*)
Mintweed *(Salvia reflexa*)
Nightshades *(Solanum spp)*
Paddy Melon *(Cucumis myriocarpus)*
Skeleton Weed *(Chondrilla juncea*)
Variegated Thistle *(Silybum marianum)*

Type 5

Knapweed (Creeping/Russian) *(Acroptilon repens)*
Sesbania Pea *(Sesbania cannabina)*
Paterson's Curse / Salvation Jane *(Echium plantagineum)*

Type 6

Colombus Grass *(Sorghum almum*)
Johnson Grass *(Sorghum halepense*)
Saffron Thistle *(Carthamus lanatus)*

Type 7a

Broad Beans (*Vicia faba*)
Chickpeas *(Cicer arietinum)*
Corn (Maize)(*Zea mays*)

Cowpea *(Vigna unguiculata)*
Faba Beans *(Vicia faba*)
Lentils *(Lens culinaris*)
Lupin *(Lupinus spp*)
Peas (Field) *(Pisum sativum*)
Safflower *(Carthamus tinctorius)*
Soybean *(Glycine max*)
Sunflower *(Helianthus annuus)*
And any other seeds or pods greater than 5mm in diameter

Type 7b

Barley (2 row) *(Hordeum distichon*)
Barley (6 row) *(Hordeum vulgare)*
Bindweed (Australian) *(Convolvulus erubescens)*
Bindweed (Black) *(Polygonum convolvulus*)
Durum *(Triticum durum*)
Red / Spring Feed Wheats (Various)
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)*

Type 7b includes any other Foreign Seeds not specified in Types 1 - 7a or elsewhere in Small Foreign Seeds or Unmillable Material Above the Screen.

Note that Wild Radish pods and Milk Thistle pods are not classified as Foreign Seeds but are defined as Unmillable Material Above the Screen. All other Foreign Seed Pods not listed and that are not greater than 5mm in diameter (Type 7a) are included as Unmillable Material Above the Screen, whether whole pods or part thereof.

Frost Damaged

Refers to grain damaged as a result of frost during the maturation phase, affected by or during drying operations, or by any damage occurring during plant growth due to herbicides. The definition does not include grain pinched as a result of dry conditions or disease during maturation.

Grade

Grade refers to the classification given to the load after it has been sampled and tested, and has been classified according to these Standards.

The following lists the more commonly used grades (note this is not a comprehensive list of grades):

AGP1	Various Varieties except FEED (General Purpose Grade)
ANW1	Australian Standard White Noodle Varieties
ANW2	Australian Standard White Noodle Varieties
APH1	Austrlaian Prime Hard Varieties
APH2	Australian Prime Hard Varieties
APW1	Australian Premium White Varieties
APW2	Australian Premium White Varieties
APWN	Australian Premium White Noodle Varieties
ASW1	Australian Standard White Varieties
AUH2	Australian Hard Varieties (Utility Grade)
AUW1	Various Varieties except FEED (Utility Grade)
DR1	Australian Durum Varieties

DR2	Australian Durum Varieties
DR3	Australian Durum Varieties
FED1	Various Varieties (Feed Grade)
H1	Australian Hard Varieties
H2	Australian Hard Varieties
HPS1	Australian Hard Varieties (High Screenings, High Protein Grade)
PNC	Cadoux variety
PNE	Eradu variety
PWT	Australian Korean Noodle Blend Varieties
SFE1	Australian Soft Varieties
SFT1	Australian Soft Varieties
SFW1	Various varieties (Stockfeed Wheat Grade)

The Grade into which a load is classified shall be determined by its variety, and then by the various physical quality specifications detailed in these Standards.

Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted

Heat Damaged or Bin Burnt

Heat damaged or bin burnt refers to those kernels that have become discoloured due to exposure to severe heat during storage or an incorrect artificial drying technique. Affected grains appear reddish brown, or in severe cases, blackened.

Storage Mould Affected

Storage Mould Affected refers to kernels that have become affected by the development of fungi or bacteria due to an increase in grain moisture levels during storage. Affected grains appear discoloured and visibly affected by mould.

Rotted

Rotted grains are those that have become severely affected by the development of fungi or bacteria due to high moisture conditions. Individual grains appear distinctly discoloured by mould and may be swollen and soft. Affected grains may feel spongy under pressure and/or emit a mouldy odour.

The above grain defects have been categorised together as the differences between them can be difficult to distinguish.

Hit and Miss

In relation to screen slots, refers to the sequence of slots on the screen when viewing along a row facing the direction of the slots. That is, the screen is made of a series of slots and “no slots” in sequence equidistant.

Insect Damaged

These are grains eaten in part by Stored Grain Insects and any field pest of grains including *Heliothis spp.*

Insects – Large and Small

These are insect contaminants of grain that do not cause damage to stored grains. There are separate tolerances for Large and Small Insects. They include but are not restricted to:

Large Insects	Small Insects
Desiantha Weevil (*Desiantha spp*)	Aphids
Grasshoppers, Locusts	Minute Mould Beetle (Corticaria spp)
Hairy Fungus Beetle (*Typhaea stercorea*)	Mites (*Acarina spp.*)
Ladybirds	Stored Grain Insects (dead only)
Pea Weevil (*Bruchus pisorum*) (dead only)	
Sitona Weevil (*Sitona spp*)	
Wood Bugs	

Tolerances apply to either Live or Dead whole Insects for most species, however note for Live Pea Weevil and Live Stored Grain Insects, a nil tolerance applies – refer to the definition of Stored Grain Insects.

For all Insects other than grasshoppers, pieces of Insects are included in Other Non-Objectionable Material.

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

Load

A load is a bulk unit tendered for delivery.

Maximum Residue Limits

Maximum Residue Limits (MRLs) are the maximum amount of a chemical residue or its metabolite that is legally permitted on or in an 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 at http://www.apvma.gov.au/residues/standard.php.

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 http://www.daff.gov.au/agriculture-food/nrs/industry-info/mrl (Industry should always confirm the accuracy of these MRL listings through their own means).

Moisture

This is the amount of water present in the sample as determined by the appropriate analytical method.

National Residue Survey

The National Residue Survey (NRS) gathers information and supplies chemical residue results on domestic and export grain commodities. The NRS results show Australian grain is of a high quality with respect to residues and contaminants. All grain exporters and container packers are encouraged to 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 at: www.daff.gov.au/nrs

Nil

Nil in these Standards means a level of zero in a half litre sample representative of the entire load (or parcel of grain being assessed) and/or not detected in the load or in/on the delivery vessel at any stage of the receival process.

Objectionable Material

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 wheat, become a food safety issue of concern or has a commercially unacceptable odour. This includes but is not limited to the following:

Animal Material

This refers to meat meal, bone meal, poultry offal, meal or any other animal proteins. Animal Material also includes carcasses of dead animals such as rats and mice.

Odour

A commercially unacceptable Odour is defined as a sour, musty or other objectionable odour emanating from the wheat which is not natural or normally associated with wheat. Odour may be caused by various means which may or may not be physically discernable in the sample being assessed.

Stick

A Stick is defined as ligneous material greater than 1cm in length and 0.5cm in diameter. Note that crop stubble greater than 3cm in length and 1cm in diameter is defined as a Stick. Smaller material is included in Other Non-Objectionable Material.

Stone

A Stone or gravel is defined as a lump or mass of hard consolidated mineral matter being greater than 2mm in length or diameter. Smaller material is defined as sand.

Tainting Agents

A Tainting Agent is any contaminant that imparts a smell or taint to wheat. It includes but is not limited to plant parts and seeds of *Eucalyptus spp.*

Water

The addition of water to grain prior to delivery is a prohibited practice.

Other

This refers to any other commercially unacceptable contaminant such as animal excreta, glass, concrete, fertiliser or metal.

Other Non-Objectionable Material

Refers to other material not otherwise specified as having a tolerance in these Standards that has the ability to degrade the quality of wheat. It includes, but is not limited to the following:

Fine Material

This refers to material such as dust and soil (<0.06mm in diameter) and minerals.

Snail Shell and Stored Grain Insects

This includes pieces of Snail Shell (less than half an entire shell), pieces of Stored Grain Insects (not whole) and pieces of Insects Large and Small.

Other

This includes pieces of Sticks that are smaller than the dimensions specified under Objectionable Material, and other non-vegetative material.

Over-Dried Damaged

This refers to defective grains caused by overheating during artificial drying. It can be detected where grain is hot, exhibits an unusual odour, exhibits significant sprouting (greater than 10%) or other evidence of weather damage but no corresponding reduction in Falling Number has occurred. Loads affected in this way should only be classified as the maximum grade of Feed. This definition includes a maximum temperature of grain tendered for delivery of $50^{O}C$ for all Grades including Feed.

Pea Weevil

Pea Weevil refers to all life stages of insects of the species *Bruchus pisorum.*

Note that a separate tolerance applies to Live and Dead Pea Weevils:

Live

- A nil tolerance applies to all live Pea Weevils

Dead

- Dead Pea Weevil are included in the definition for Insects – Large
- Pieces of Pea Weevils are classified as Other Non-Objectionable Material

As Pea Weevils are commonly found inside field pea seeds, it is recommended that a number of field peas present in a load of grain should be broken and assessed for the presence of this insect.

Pickling Compounds

Pickling Compounds are those chemicals added to grain as a seed treatment or as a seed dressing prior to sowing. They are usually associated with a colouring agent. Grains contaminated in this way may be identified by an unnatural surface colour and/or colour that rubs off.

Pink Stained

This is a grain defect arising from infection by certain *Fusarium spp*, *Eppicoccum spp* or *Drechslera spp*. This defect is included in the tolerance for “Stained”.

Protein

Proteins (amino acids arranged in a linear chain) form a large component part of grains. These structures are responsible for the quality expressions in end use products made from wheat.

Sand

A grain of Sand is defined as a particle of unconsolidated (loose), rounded to angular rock fragment or mineral grain between 0.06mm and 2.00mm in diameter. Smaller material is classified under Other Non-Objectionable Material. Larger material is classified as Earth or Stones.

Screenings

See “Unmillable Material below the Screen”.

Small Foreign Seeds

These are all small foreign seeds in the unmillable material fraction which have fallen below the screen during the screening process, except those specifically mentioned in the Foreign Seeds definition.

Snails

This refers to whole or substantially whole (more than half) Snail shells, irrespective of size. These include but are not limited to:

- Common White Snail (*Cernuella virgata)*
- White Italian Snail (*Theba pisana)*
- Pointed Snail (*Cochlicella actua)*
- Small Pointed Snail (*Cochlicella abarbara)*
- Any other snail

Pieces of Snail Shell that are less than half an entire shell are classified under Other Non-Objectionable Material.

Sprouted

Sprouted grains are those in which the covering of the germ is split. It includes early and any further advanced stage of growth of the germ. Kernels exhibiting early stages of sprouting are those where the covering of the germ is split, but without further development of the shoot. Grains that have had the germ knocked off or scalloped out due to header damage or grains with pin holes are not included in this definition.

Standards

Standards means all the test parameters listed in this Manual. Loads presented for delivery or samples to be assessed under these Standards must be analysed for all the parameters listed in the Standards, unless otherwise specified in individual Storage and Handling Agreements.

Stained

Refers to a grain defect caused by either exposure to wet and damp conditions during growth and maturation phases or a stress related biochemical reaction, which causes individual grains to become visually discoloured. The definition includes kernels that display the following:

- A distinct dark brown to black discolouration on the germ end that, in severe cases, may progress to other parts of the grain such as the crease. These grains are commonly referred to as “black point” or “black tip”.

- A light grey to black mould like discolouration that usually extends from the brush end of the grain, but does not cover more than 50% of the entire grain surface. Kernels with greater than 50% of a mould like discolouration are to be classified as “Field Fungi”.

- Adherence of contaminants such as soil, dust, plant parts and other material. These grains are commonly referred to as “Staining due to Moist Plant Material”.

- Pink Stained grains arising from infection by certain *Fusarium spp*, *Eppicoccum spp* or *Drechslera spp*. Refer to the definition of “Pink Stained”.

Grains that exhibit small dots covering less than 5% of the surface area of the kernel (a small proportion) are not to be classified as Stained and are otherwise whole sound grains. This “mould like discolouration” refers to a relatively slow growing mould that is considered harmless (generally does not produce mycotoxins) but does affect the appearance of the grain. It does not refer to the more serious storage moulds.

Stored Grain Insects

These are insects which cause damage to stored grain and the tolerance applies to all life stages of the insect.

These include:

- Angoumois Grain Moth (*Sitrotroga cerealella)*
- Confused Flour Beetle (*Tribolium confusum)*
- Flat Grain Beetle (*Cryptolestes spp)*
- Granary Weevil (*Sitophilus granarius)*
- Indian Meal Moth (*Plodia interpunctella)*
- Khapra Beetle (*Trogoderma granarium)*
- Lesser Grain Borer (*Rhyzopertha dominica)*
- Maize Weevil (*Sitophilus zeamais)*
- Psocids/Book lice (*Psocoptera sp*)
- Rice Weevil (*Sitophilus oryzae)*
- Rust-red Flour Beetle (*Tribolium castaneum)*
- Saw Tooth Grain Beetle (*Oryzaephilus surinamensis*)
- Tropical Warehouse Moth (*Ephestia cautella)*
- Warehouse Beetle (*Trogoderma variable)*

Note that a separate tolerance exists for dead and live Stored Grain Insects.

Live

- A nil tolerance applies to all live Stored Grain Insects

Dead

- Dead Stored Grain Insects are included in the definition for Insects – Small
- Pieces of Stored Grain Insects are classified as Other Non-Objectionable Material

Takeall Affected

This is a grain defect caused by infection by the fungus *Gaeumannomyces graminis* often resulting in distortion of the grain. This definition only applies to those grains which appear yellowish or white in colour and which have a hollowed out appearance. The definition does not apply to those grains affected by Frost or pinched as a result of dry conditions or other diseases during maturation.

Test Weight

Test Weight is a measure of the density of grain.

Unmillable Material Above the Screen

This consists of whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods, other seedpods and other light material which remains above the 2.00mm screen after a sample of grain is subjected to the screening process. It excludes contaminants for which tolerances have been stated in these Standards.

Chaff is defined as the protective material surrounding the mature seed prior to thrashing or harvesting. Backbone is the material to which seeds are attached to the plant stem.

Unmillable Material Below the Screen (Screenings)

This is the total material passing through a 2.00mm screen after a sample of grain is subjected to the screening process. It includes Small Foreign Seeds.

Variety

This is the next lowest level taxonomic rank of a plant below that of the term “species”. Wheats of differing varieties have differing genetic compositions which may endow them with differing agronomic characteristics, and/or differing end product quality characteristics. For this reason, varieties are best segregated into groups which have similar quality characteristics and/or are best suited to particular end product uses.

Varietal Master List

This list designates the varietal group into which each variety may be assigned, for each of the seven geographical crop growing zones of Australia. The varietal zones designated by geographical region are:

Queensland
Northern New South Wales
Central New South Wales
Southern New South Wales
Victoria
South Australia
Western Australia

The Varietal Master List appears in Section 4 of these Standards.

Varietal Restrictions

Are restrictions to the varieties able to be received into each grade. Refer to Varietal Master List for the maximum classification of each variety.

Wheat

Wheat includes grains of the species *Triticum aestivum* (bread wheat), *Triticum tauschii* (soft wheat) and *Triticum durum* (durum).

SECTION 3 GRAIN QUALITY STANDARDS

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

To fully understand and accurately implement the wheat Standards, reference should be made to other relevant sections in this Manual, this includes Definitions, the Varietal Master List and Methods & Procedures.

Other sections of the GTA Standards Manual should also be perused for general guidance on activities associated with implementation of these Standards.

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 GTA website and other relevant industry information sources.

Commodity: Wheat		**Season: 2010/11**	
Grade: APH1		**Standard Reference No.: CSG-110**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	14.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	350	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: APH2		**Standard Reference No.: CSG-100**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	13.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	350	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: H1		**Standard Reference No.: CSG-101**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	13.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: H2		**Standard Reference No.: CSG-102**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	11.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: APW1		**Standard Reference No.: CSG-103**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	10.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: APW2		**Standard Reference No.: CSG-104**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	10.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: ASW1		**Standard Reference No.: CSG-105**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	No Min.	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: AUH2		**Standard Reference No.: CSG-106**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	11.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	71.0		
Unmillable Material Above the Screen Max (% by weight)	1.2	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	10.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	250	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	2.0
Stained, including Staining due to Moist Plant Material, of which;	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	20.0	Takeall Affected	2.0
Dry Green or Sappy	2.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	3	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: AGP1		**Standard Reference No.: CSG-107**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	No Min.	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	68.0		
Unmillable Material Above the Screen Max (% by weight)	1.2	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	10.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	200	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	10.0
Stained, including Staining due to Moist Plant Material, of which;	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	20.0	Takeall Affected	1.0
Dry Green or Sappy	5.0	Insect Damaged	2.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	15	Number of galls	
Snails	10	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	3	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: AUW1		**Standard Reference No.: CSG-108**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	10.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	68.0		
Unmillable Material Above the Screen Max (% by weight)	2.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	25.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	250	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	10.0
Stained, including Staining due to Moist Plant Material, of which;	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	40.0	Takeall Affected	1.0
Dry Green or Sappy	5.0	Insect Damaged	2.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	15	Number of galls	
Snails	10	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	3	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: HPS1		**Standard Reference No.: CSG-109**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	11.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	68.0		
Unmillable Material Above the Screen Max (% by weight)	2.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	25.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	250	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	2.0
Stained, including Staining due to Moist Plant Material, of which;	10.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	3.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	40.0	Takeall Affected	2.0
Dry Green or Sappy	2.0	Insect Damaged	2.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	5	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: ANW1 (WA)		**Standard Reference No.: CSG-120**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	9.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat **Grade: ANW1 (NSW/VIC)**		**Season: 2010/11** **Standard Reference No.: CSG-121**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	9.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which;	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: ANW2		**Standard Reference No.: CSG-122**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	No Min.	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	No Max.		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: PNC		**Standard Reference No.: CSG-123**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Cadoux only	
Protein Min (%)	9.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: PNE		**Standard Reference No.: CSG-124**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Eradu only	
Protein Min (%)	9.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: PWT		**Standard Reference No.: CSG-125**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	9.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: ASWS		**Standard Reference No.: CSG-126**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	9.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: APWN		**Standard Reference No.: CSG-127**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	10.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	11.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: DR1		**Standard Reference No.: CSG-130**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	13.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	3.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil	Vitreous Kernels Min (using an approved method)	80
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Bread wheat, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	
Bread Wheat (% by count)	3.0	300 grain sample (500 grain sample for WA)	

Commodity: Wheat		**Season: 2010/11**	
Grade: DR2		**Standard Reference No.: CSG-131**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	11.5	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	2.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	2.0	Insect Damaged	1.0
Over-Dried Damaged	Nil	Vitreous Kernels Min (using an approved method)	70
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Bread wheat, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	
Bread Wheat (% by count)	3.0	300 grain sample (500 grain sample for WA)	

Commodity: Wheat		**Season: 2010/11**	
Grade: DR3		**Standard Reference No.: CSG-132**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	10.0	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	71.0		
Unmillable Material Above the Screen Max (% by weight)	1.2	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	10.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	200	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	2.0
Stained, including Staining due to Moist Plant Material, of which:	20.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	2.0	Insect Damaged	1.0
Over-Dried Damaged	Nil	Vitreous Kernels Min (using an approved method)	n/a
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Bread wheat, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	
Bread Wheat (% by count)	5.0	300 grain sample (500 grain sample for WA)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFE1 (NSW/VIC)		**Standard Reference No.: CSG-140**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	9.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	8.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	10.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFE1 (SA)		**Standard Reference No.: CSG-141**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	9.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFT1		**Standard Reference No.: CSG-142**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	9.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	5.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFE2 (NSW/VIC)		**Standard Reference No.: CSG-143**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	10.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	8.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	5.0
Stained, including Staining due to Moist Plant Material, of which:	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	5.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFE2 (SA)		**Standard Reference No.: CSG-144**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	10.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	68.0		
Unmillable Material Above the Screen Max (% by weight)	1.2	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	10.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	200	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	10.0
Stained, including Staining due to Moist Plant Material, of which:	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	5.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFT2		**Standard Reference No.: CSG-145**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	Yes	Approved varieties only	
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	10.5		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	74.0		
Unmillable Material Above the Screen Max (% by weight)	0.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	8.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	300	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	Nil	Frost Damaged	1.0
Stained, including Staining due to Moist Plant Material, of which:	5.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	2.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	1.0	Insect Damaged	1.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	10	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	1	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	50	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	0.6	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	10	Number of galls	
Snails	1	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	20	Individual grains	
Earth	1	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: FED1		**Standard Reference No.: CSG-150**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	No		
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	62.0		
Unmillable Material Above the Screen Max (% by weight)	2.6	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	15.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	n/a	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	n/a	Frost Damaged	n/a
Stained, including Staining due to Moist Plant Material, of which:	50.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	40.0	Takeall Affected	n/a
Dry Green or Sappy	n/a	Insect Damaged	4.0
Over-Dried Damaged	n/a		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	100	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	400	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	50	Number of galls	
Snails	10	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	6	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.2	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

Commodity: Wheat		**Season: 2010/11**	
Grade: SFW1		**Standard Reference No.: CSG-151**	
QUALITY PARAMETER	**SPECIFICATION**	**COMMENT**	
Varietal Restrictions	No		
Protein Min (%)	n/a	N X 5.7 @ 11% Moisture Basis	
Protein Max (%)	n/a		
Moisture Max (%)	12.5		
Test Weight Min (kg/hl)	70.0		
Unmillable Material Above the Screen Max (% by weight)	1.2	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods or other seedpods not otherwise listed. Excludes contaminants where tolerances already exist.	
Screenings Max (% by weight)	10.0	All matter passing through a 2.0mm slotted screen – 40 shakes in the direction of the slots	
Falling Number Min (sec)	n/a	Falling Number result overrides the visual assessment for Sprouted grains	
Defective Grains Max - (% by count, 300 grain sample [500 grain sample for WA], unless otherwise stated)			
Sprouted	n/a	Frost Damaged	10.0
Stained, including Staining due to Moist Plant Material, of which:	15.0	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted (entire load)	Nil
- Pink Stained	5.0	All Smuts except Loose Smut (entire load)	Nil
Field Fungi (count per half litre)	10.0	Takeall Affected	1.0
Dry Green or Sappy	10.0	Insect Damaged	2.0
Over-Dried Damaged	Nil		
Foreign Seed Contaminants Max - (count of seeds in total per half litre, unless otherwise stated)			
Type 1 (individual seeds)	8	Colocynth, Double Gees/Spiny Emex/Three Cornered Jack, Jute, Long Head Poppy, Mexican Poppy, Opium Poppy, Field Poppy, Horned Poppy, Wild Poppy, New Zealand Spinach, Parthenium Weed	
Type 2	Nil	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	
Type 3a	2	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	
Type 3b	4	Vetch (Tare), Vetch (Commercial)	
Type 3c	8	Heliotrope (Blue), Heliotrope (Common)	
Type 4	20	Bindweed (Field), Cutleaf Mignonette, Darnel (Drake Seed), Hexham Scent/Meliot (only acceptable if no tainting odour is present), Hoary Cress, Mintweed, Nightshades, Paddy Melon, Skeleton Weed, Variegated Thistle	
Type 5	40	Knapweed (Creeping/Russian), Sesbania Pea, Patterson's Curse/ Salvation Jane	
Type 6	50	Colombus Grass, Johnson Grass, Saffron Thistle	
Type 7a	10	Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds or pods greater than 5mm in diameter	
Type 7b	150	Barley (2 & 6 row), Bindweed (Australian), Bindweed (Black), Durum, Red/Spring Feed Wheats, Oats (Black/Wild), Oats (Sand), Oats (Common), Rice, Rye (Cereal), Sorghum (Grain), Triticale, Turnip Weed and any other Foreign Seeds not specified in Types 1-7(a), in SFS or in Unmillable Material Above the Screen that remain above the 2.0mm screen following the Screenings process	
Small Foreign Seeds (% by weight)	1.2	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process	
Other Contaminants Max - (count per half litre, unless otherwise stated)			
Pickling Compounds (entire load)	Nil	Pickled grain	
Chemicals Not Approved for Wheat (entire load)	Nil	Residues of any chemical compound not approved for wheat, used in contravention of the labelled instructions or chemicals in excess of the MRL	
Ryegrass Ergot (length in cm)	2.0	Length of all pieces present aligned end on end	
Cereal Ergot	1	Pieces or whole affected kernel	
Stored Grain Insects & Pea Weevil – Live (entire load)	Nil	All life stages	
Insects – Large, dead or alive	3	Includes Rutherglen bugs, ladybirds, grasshoppers, sitona weevils, wood bugs & pea weevil (dead only)	
Insects – Small, dead or alive	10	Includes all species of aphid, mites & stored grain insects (dead only)	
Earcockle	15	Number of galls	
Snails	10	Dead or alive	
Loose Smut	3	Pieces of backbone	
Sand	50	Individual grains	
Earth	3	5mm maximum in diameter	
Objectionable Material (entire load)	Nil	Presence of meat meal, blood meal, fish meal, poultry offal meal or other animal proteins. Sticks (>1cm in length and 0.5cm in diameter), stubble (>3cm in length and 1cm in diameter), stones (>2mm in length and/or diameter), glass, concrete, metal, animal excreta, animal carcasses, tainting agents or any other commercially unacceptable contaminant, smell or taste.	
Other Non-Objectionable Material (% by weight)	0.1	Fine material (eg., Soil, dust and minerals), pieces of snail shell (< half), pieces of stored grain insects and sticks (≤1cm in length and ≤0.5cm in diameter)	

SECTION 4 VARIETAL CLASSIFICATION

Wheat Variety Classification is the responsibility of the Wheat Classification Council (WCC) and is undertaken by the Variety Classification Panel. Wheat classification is the categorisation of a wheat variety into a Class based on processing and end product quality. The Classification Process aims to deliver grain of consistent physical quality, processing performance and end-product quality to customers and end-users. For any questions relating to the Classification process or the Varietal Masterlist please go to the WCC website – www.wheatclassificationcouncil.com.au

The Wheat Variety MasterList provided in this document details all of the varieties acceptable for delivery and their individual classifications or Classes by zone. While the MasterList is updated several times each year as new varieties are released or existing varieties are reviewed, the final version for the 2010/11 harvest has been included here.

The following Table contains a list of all the Classes into which wheat varieties may be classified. These Classes determine the maximum Bin Grade into which a variety may be received. The Table includes the other, lower Bin Grades into which the variety may also be received – the Bin Grade cascade. This Table should be read in conjunction with the 2010/11 Wheat Variety Master List.

Class	Bin Grade Cascade
APH*	APH1/APH2 / H1 / H2 / APW1 / APW2 / ASW1 / AUH2 / AGP1 / AUW1 / HPS1 / SFW1 /FED1
AH	H1 / H2 / APW1 / APW2 / ASW1 / AUH2 / AGP1 / AUW1 / HPS1 / SFW1 / FED1
APW	APW1 / APW2 / ASW1 / AGP1 / AUW1 / HPS1 / SFW1 / FED1
ASW	ASW1 / AGP1 / AUW1 / HPS1 / SFW1 / FED1
AGP	AGP1 / AUW1 / HPS1 / SFW1 / FED1
ASF1 (SFE)	SFT1 (SFE1) / SFT2 (SFE2) / ANW2 /AGP1 / AUW1 / HPS1 / SFW1 / FED1
ASWN	ANW1 / ANW2 / AGP1 / AUW1 / SFW1 / FED1
ADR	DR1 / DR2 / DR3 / FED1
APWN**	APWN and then as per APW unless otherwise indicated in the MasterList
APWT**	PWT and then as per APW unless otherwise indicated in the MasterList
FEED***	FED1

* The APH class is only available in QLD and NSW
** The APWT and APWN classes are only available in WA
*** Includes all Red wheat varieties and Spring Feed wheat varieties

Rules to Apply:

1. The maximum bin grade classification is to be read from left to right in the above table as this reflects the highest to lowest grade
2. Deliveries must meet relevant Standards to be able to be received into that bin grade
3. If the segregation is not available, the next bin grade will apply if the grain is delivered unless other requirements are stated in the relevant Storage & Handling Agreement
4. Note that not all bin grades implemented during the 2010/11 season may be listed in the above table

For the purpose of delivery, the classification is dependant on the point of delivery based on the seven classification zones. These Classification Zones are:

1. Queensland – defined by the state boundaries of Queensland
2. Northern NSW – defined by the Queensland/NSW boundary and the area north of the Central NSW Zone
3. Central NSW – defined by the region containing the receival sites Albert, Alectown, Bogan Gate, Condobolin, Euabolong West, Gobondery, Gunningbland, Kadungle, Kiacatoo, Mickibri, Ootha, Parkes, Peak Hill, Tomingley, Tottenham, Trundle, Tullamore, Wyanga, Yarrabandi, Yeoval and Yethera
4. Southern NSW – defined by the Victoria/NSW state boundary and the area south of the Central NSW Zone
5. Victoria – defined by the state boundaries of Victoria
6. South Australia – defined by the state boundaries of South Australia
7. Western Australia – defined by the state boundaries of Western Australia

Wheat Varietal Master List – 30 July 2010

Disclaimer - This document is intended only to provide grade information for the receival of wheat. The information in this document may be amended from time to time. Interested parties should regularly check the GTA or WCC web site for any amendments or alterations to any printed information in this document. Although reasonable care has been exercised in the preparation of this document, no representation or warranty is made as to the accuracy, completeness or reliability of the information. Interested parties should make their own enquiries as to the accuracy of any information. Please always seek the latest information by contacting the GTA or WCC web sites.

Please note: - That the classification grade indicates the highest possible receival grade available for respective varieties. - That some or all of the varieties listed in the table below may be protected by PBR

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
498	AGT KATANA	APW	AH	APW*	APW*	APW*	APW*	APW*
438	AGT SCYTHE	ASW*	APW	ASW*	ASW*	ASW*	ASW*	ASW*
292	AJANA	ASW	AGP	AGP	AGP	AGP	AGP	AGP
446	AMAROK	FEED	FEED	FEED	FEED	FEED	FEED	FEED
236	AMERY	AH	ASW	ASW	ASW	ASW	ASW	ASW
221	ANGAS	AGP	APW	ASW	AGP	AGP	AGP	AGP
299	ANLACE	AGP	ASF1	ASF1	ASF1	AGP	AGP	AGP
408	ANNUELLO	APW	AH	AH	AH	APW	APW	APW*
270	ARNHEM	APW	APW	APW	APW	AH	AH	AH
1	AROONA	APW	APW	AGP	AGP	AGP	AGP	AGP
279	ARRINO	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
319	ARRIVATO	ADR	ADR	ADR	ADR	ADR	ADR	ADR
2	AVOCET	AGP	AGP	AGP	AGP	AGP	AGP	AGP
466	AXE	APW	AH	APW	APW*	APW*	APW*	APW*
333	BABBLER	APW*	APW	APW*	APH	APH	APH	APH
4	BALDMIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
6	BANKS	AGP	AH	AH	APH	APH	APH	APH
451	BARHAM	AGP*	ASF1	ASF1	ASF1	AGP*	AGP*	AGP*
8	BAROOTA WONDER	AGP	AGP	AGP	AGP	AGP	AGP	AGP
245	BARUNGA	APW	AH	AH	AGP	AGP	AGP	AGP
9	BASS	AGP	AGP	AGP	AGP	AGP	AGP	AGP
219	BATAVIA	AH	APW	AH	APH	APH	APH	APH
295	BAXTER	AH	APW*	APW*	APH	APH	APH	APH
7	BAYONET	AGP	AGP	AGP	AGP	AGP	AGP	AGP
10	BEACON	AGP	AGP	AGP	AGP	AGP	AGP	AGP
12	BEDKIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
14	BENCUBBIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
241	BEULAH	AGP	APW	APW	APW	APW	APW	AGP
16	BINDAWARRA	AGP	ASF1	AGP	AGP	AGP	AGP	AGP
455	BINNU	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
19	BLADE	AH	AH	AH	AGP	AGP	AGP	AGP
17	BODALLIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
18	BOKAL	AGP	AGP	AGP	AGP	AGP	AGP	AGP
457	BOLAC	APW*	AH	AH	APH	APW*	APW*	APW*
401	BOWERBIRD	APW*	APW*	APW*	AH	AH	AH	AH
263	BOWIE	AGP	ASF1	ASF1	ASF1	ASF1	ASF1	ASF1
402	BRAEWOOD	AH	AH	AH	AH	AH	AH	AH

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
290	BRENNAN	FEED	FEED	FEED	FEED	FEED	FEED	FEED
285	BROOKTON	APW	APW	ASW	ASW	ASW	ASW	ASW
225	BT SCHOMBURGK	AH	AH	AGP	AGP	AGP	AGP	AGP
271	BUCKLEY	AGP	ASF1	AGP	AGP	AGP	AGP	AGP
443	BULLARING	ASF1	AGP	AGP	AGP	AGP	AGP	AGP
489	BUMPER	ASW	AGP*	AGP*	AGP*	AGP*	AGP*	AGP*
20	BUNGULLA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
227	CADOUX	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
280	CALINGIRI	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
293	CAMM	APW	APW	APW	ASW	ASW	ASW	ASW
23	CANNA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
487	CAPAROI	ADR	ADR	FEED*	FEED*	FEED*	ADR	ADR
445	CARINYA	APW*	AH	AH	AH	AH	AH	AH
310	CARNAMAH	AH	APW	APW	APW	APW	APW	APW
250	CASCADES T/N	AH	APW	AGP	AGP	AGP	AGP	AGP
21	CELEBRATION	AGP	AGP	AGP	AGP	AGP	AGP	AGP
313	CHARA	APW	AH	AH	APH	APH	AH*	APW*
22	CLAYMORE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
403	CLEARFIELD JNZ	AH	AH	AH	AH*	APH	APH	APH
404	CLEARFIELD STL	APW	APW	APW	ASW*	ASW*	ASW*	ASW*
24	CLUBHEAD	AGP	AGP	AGP	AGP	AGP	AGP	AGP
25	COCAMBA	AGP	APW	AH	AH	APW	AGP	AGP
189	COMET	AGP	AGP	AGP	AGP	AGP	AGP	AGP
26	CONDOR	AGP	AH	AH	AH	APW	AGP	AGP
28	COOK	AGP	AGP	AGP	AGP	AGP	AGP	AGP
27	CORELLA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
449	CORRELL	APW*	AH	AH	AH	APW*	APW*	APW*
214	CORRIGIN	ASF1	ASF1	AGP	AGP	AGP	AGP	AGP
31	CRANBROOK	ASW	AGP	AGP	AGP	AGP	AGP	AGP
309	CUNDERDIN	APW	ASW	ASW	ASW	ASW	ASW	ASW
305	CUNNINGHAM	APW	APW	AH	APH	APH	APH	APH
248	CURRAWONG	FEED	FEED	FEED	FEED	FEED	FEED	FEED
29	DAGGER	APW	APW	AGP	AGP	AGP	AGP	AGP
30	DARKAN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
247	DARTER	AGP	AGP	AGP	AH	APW	APW	AGP
251	DATATINE	ASF1	ASF1	AGP	AGP	AGP	AGP	AGP
264	DECLIC	FEED	FEED	FEED	FEED	FEED	FEED	FEED
331	DENNIS	FEED	FEED	FEED	FEED	FEED	FEED	FEED
458	DERRIMUT	APW*	AH	AH	APW*	APW*	APW*	APW*
32	DEVON	AGP	AGP	AGP	AGP	AGP	AGP	AGP
287	DIAMONDBIRD	APW	AH	AH	AH	AH	AH	AH
33	DIAZ	AGP	AGP	AGP	AGP	AGP	AGP	APH
34	DIRK	AGP	AGP	AGP	AGP	AGP	AGP	AGP
35	DOLLARBIRD	AH	AH	AH	AH	AH	AH	AH
409	DRYSDALE	APW	APW	APW*	AH	AH	APW*	APW*
36	DURAL	FEED	FEED	FEED	FEED	ADR	ADR	FEED
38	DURAMBA	FEED	FEED	FEED	FEED	FEED	FEED	FEED
40	DURATI	FEED	FEED	FEED	FEED	ADR	ADR	FEED
42	EAGLE	AGP	AGP	AGP	AGP	AGP	AGP	AGP

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
422	EGA 2248	ASF1	AGP	AGP	AGP	AGP	AGP	AGP
416	EGA BELLAROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
426	EGA BLANCO	FEED	FEED	FEED	FEED	FEED	FEED	FEED
417	EGA BONNIE ROCK [N]	AH	APW*	APW*	APW*	APW*	APW*	APW*
474	EGA BOUNTY	APW*	APW*	APW*	AH	AH	AH	AH
456	EGA BURKE	APW*	APW*	APW*	AH*	AH*	APH	APH
425	EGA CASTLE ROCK	AH	APW*	APW*	APW*	APW*	APW*	APW*
439	EGA EAGLE ROCK	AH	APW*	APW*	APW*	APW*	APW*	APW*
477	EGA EAGLEHAWK	APW*	APW*	APW*	APH	AH	AH	AH*
434	EGA GREGORY	AH	APW*	APW*	AH*	AH*	APH	APH
418	EGA HUME	APW*	APW*	APW*	AH*	AH*	AH*	APH
476	EGA JAEGER	APW*	APW*	AH	AH	AH	AH	AH
424	EGA JITARNING	ASF1	AGP	AGP	AGP	AGP	AGP	AGP
478	EGA KIDMAN	APW*	APW*	APW*	AH*	AH*	AH*	APH
475	EGA STAMPEDE	FEED	FEED	FEED	FEED	FEED	FEED	FEED
419	EGA WEDGETAIL	APW*	APW*	APW*	APH	AH	AH	AH
435	EGA WENTWORTH	APW	APW	AH	AH	AH	AH	AH
469	EGA WILLS	APW*	APW*	APW*	APW	APW	AH	AH
436	EGA WYLIE	APW*	APW*	APW*	AH	AH	AH	AH
44	EGRET	AGP	AGP	AGP	AGP	AGP	AGP	AGP
431	ELLISON	APW*	APW*	APW*	APH	APH	APH	APH
48	EMBLEM	AGP	AGP	AGP	AGP	AGP	AGP	AGP
488	ENDURE	APW	ASW*	ASW*	ASW*	ASW*	ASW*	ASW*
51	ERADU	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
479	ESPADA	APW	APW	APW	AH	ASW*	ASW*	ASW*
50	ESPERIO	AGP	AGP	AGP	AGP	AGP	AGP	AGP
52	EUREKA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
220	EXCALIBUR	AGP	ASW	AGP	AGP	AGP	AGP	AGP
54	FALCON	AGP	AGP	AGP	AGP	AGP	AGP	AGP
494	FANG	APW	APW	ASW*	ASW*	ASW*	ASW*	ASW*
57	FELIX	AGP	AGP	AGP	AGP	AGP	AGP	AGP
56	FESTIGUAY	AGP	AGP	AGP	AGP	AGP	AGP	AGP
58	FESTIVAL	AGP	AGP	AGP	AGP	AGP	AGP	AGP
59	FLINDERS	AGP	AGP	AGP	AGP	AGP	AGP	APH
60	FORD	AGP	AGP	AGP	AGP	AGP	AGP	AGP
491	FORTUNE	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
254	FRAME	APW	APW	APW	APW	APW	ASW	AGP
480	FRELON	FEED	FEED	FEED	FEED	FEED	FEED	FEED
64	GABO	AGP	AGP	AGP	AGP	AGP	AGP	AGP
66	GALA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
68	GAMBEE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
70	GAMENYA	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
72	GAMUT	AGP	AGP	AGP	AGP	AGP	AGP	AGP
74	GATCHER	AGP	AGP	AGP	AGP	AGP	APH	AGP
428	GBA COMBAT	ASW*	APW	APW	AH	AH	AH	AH
441	GBA HUNTER	FEED	FEED	FEED	FEED	FEED	FEED	FEED
429	GBA RUBY	ASW	ASW	ASW	ASW	ASW	ASW	AGP
427	GBA SAPPHIRE	AH	APW	APW	APH	APH	APH	APH
430	GBA SHENTON	FEED	FEED	FEED	FEED	FEED	FEED	FEED

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
316	GILES	APW*	APW*	APW*	AH*	APH	APH	APH
459	GLADIUS	APW*	AH	AH	AH	APW*	APW*	APW*
76	GLAIVE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
78	GLENWARI	AGP	AGP	AGP	AGP	AGP	AGP	AGP
410	GLOVER	APW*	APW*	APW*	APW*	APW*	APW*	AH
80	GLUCLUB	ASF1	AGP	AGP	AGP	AGP	AGP	AGP
82	GOLDEN KING	AGP	AGP	AGP	AGP	AGP	AGP	AGP
274	GOLDMARK	APW	APW	AH	AH	AH	APW	APW
286	GORDON	FEED	FEED	FEED	FEED	FEED	FEED	FEED
240	GOROKE	AGP	APW	APW	APW	APW	APW	AGP
77	GREBE	AGP	AGP	AGP	ASF1	AGP	AGP	AGP
318	GUNDEROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
79	GUTHA T/N	AH	AGP	AGP	AGP	AGP	AGP	AGP
282	H45	APW	APW	APW	AH	AH	AH	AH
442	H46	APW	APW	APW	APW	APW	APW	ASW*
84	HALBERD T/N	APW	APW	APW	AGP	AGP	AGP	AGP
85	HARRIER	AGP	AGP	AGP	AH	AH	AH	AGP
337	HARRISMITH	ASF1	AGP	AGP	AGP	AGP	AGP	AGP
81	HARTOG	AGP	AGP	AH	APH	APH	APH	APH
86	HERON	AGP	AGP	AGP	AGP	AGP	AGP	AGP
83	HOPPS	AGP	AGP	AGP	AGP	AGP	AGP	AGP
226	HOUTMAN	AGP	AGP	AGP	APW	AH	AH	AH
87	HUGUENOT	FEED	FEED	FEED	FEED	FEED	FEED	FEED
256	HYBRID APOLLO	APW	AGP	AGP	APH	APH	APH	APH
258	HYBRID GEMINI	APW	AGP	AGP	APW	AH	AH	AH
257	HYBRID MERCURY	APW	AGP	AGP	APH	APH	APH	APH
206	HYBRID METEOR	AGP	AGP	AGP	APH	APH	APH	APH
228	HYBRID PULSAR	AGP	AGP	AGP	APH	APH	APH	APH
89	HYBRID TITAN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
91	HYDEN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
484	HYPERNO	FEED*	ADR	FEED*	FEED*	FEED*	ADR	ADR
323	INSIGNIA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
88	INSIGNIA 49	AGP	AGP	AGP	AGP	AGP	AGP	AGP
90	ISIS	AGP	AGP	AGP	AGP	AGP	AGP	AGP
92	JABIRU	AGP	AGP	AGP	AGP	AGP	AGP	AGP
93	JACUP	AGP	AGP	AGP	AGP	AGP	AGP	AGP
460	JANDAROI	ADR	ADR	FEED*	FEED*	FEED*	ADR	ADR
211	JANZ	AH	AH	AH	APH	APH	APH	APH
311	KALANNIE	AH	APW	APW	APW	APW	APW	APW
423	KALKA	ADR	ADR	ADR	ADR	ADR	ADR	ADR
94	KALKEE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
97	KAMILAROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
312	KARLGARIN	APW	ASW	ASW	ASW	ASW	ASW	ASW
224	KATUNGA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
95	KATYIL	AGP	AGP	AGP	AGP	AGP	AGP	AGP
210	KELALAC	AGP	AGP	APW	AGP	AGP	AGP	AGP
294	KENNEDY	FEED	FEED	FEED	FEED	FEED	APH	APH
98	KEWELL	AGP	AGP	AGP	AGP	AGP	AGP	AGP
205	KIATA	AGP	AGP	AGP	AGP	AGP	AGP	AGP

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
103	KING	AGP	AGP	AGP	AGP	AGP	AGP	AGP
497	KING ROCK [N]	AH	APW*	APW*	APW*	APW*	APW*	APW*
99	KINGS EARLY	AGP	AGP	AGP	AGP	AGP	AGP	AGP
101	KINGS WHITE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
102	KITE	AH	AH	APW	AH	AH	AH	AH
104	KODA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
106	KONDUT	AGP	AGP	AGP	AGP	AGP	AGP	AGP
265	KRICHAUFF	ASW	ASW	ASW	ASW	ASW	ASW	ASW
260	KRONOS	FEED	FEED	FEED	FEED	FEED	FEED	FEED
327	KUKRI	APW*	AH	APW*	APW*	APW*	APW*	APW*
107	KULIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
108	LANCE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
324	LANG	AH	AH	APW*	APH	APH	APH	APH
215	LARK	AGP	AGP	AGP	AH	APW	APW	AGP
255	LAWSON	FEED	FEED	FEED	FEED	FEED	FEED	FEED
266	LEICHHARDT	APW	APW	APW	AH	AH	AH	AH
218	LILLIMUR	AGP	AGP	AGP	AGP	AGP	AGP	AGP
467	LIVINGSTON	APW	AH	AH	AH	AH	AH	AH
405	LORIKEET	ASW	ASW	ASWN	ASWN	ASWN	ASW*	ASW
105	LOWAN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
483	LRPB BEAUFORT	FEED	FEED	FEED	FEED	FEED	FEED	FEED
470	LRPB BULLET	ASW*	APW	APW	ASW*	ASW*	ASW*	ASW*
453	LRPB CATALINA	APW	AH	AH	APW	APW	APW	ASW*
462	LRPB CRUSADER	APW*	APW*	APW*	APH	APH	APH	APH
463	LRPB DAKOTA	APW*	APW*	APW*	AH	AH	AH	AH
452	LRPB GUARDIAN	ASW	APW	APW	APW	APW	APW	ASW*
464	LRPB HORNET	APW*	APW*	APW*	AH	AH	AH	AH
465	LRPB LINCOLN	APW*	AH	AH	AH	AH	AH	APW*
495	LRPB ORION	AGP*	AGP*	AGP*	ASF1	ASF1	ASF1	AGP*
496	LRPB SCOUT	APW	APW	ASW*	ASW*	ASW*	ASW*	ASW*
499	LRPB SPITFIRE	AH*	AH*	AH*	AH	AH*	APH	AH*
492	MACE	AH	APW*	AH	APW*	APW*	APW*	APW*
109	MACHETE	AH	AH	AH	AGP	AGP	AGP	AGP
420	MACKELLAR	FEED	FEED	FEED	FEED	FEED	FEED	FEED
110	MADDEN	AH	AGP	AGP	AGP	AGP	AGP	AGP
471	MAGENTA	APW	ASW*	APW	ASW*	ASW*	ASW*	ASW*
411	MAROMBI	FEED*	FEED*	FEED*	ASW	ASW	ASW	FEED*
111	MATONG	AGP	AGP	AGP	AGP	AGP	AGP	AGP
269	MAWSON	FEED	FEED	FEED	FEED	FEED	FEED	FEED
113	MEERING	AGP	AH	AH	AH	APW	AGP	AGP
112	MENDOS	AGP	AGP	AGP	AGP	AGP	AGP	AGP
114	MENGAVI	AGP	AGP	AGP	AGP	AGP	AGP	AGP
468	MERINDA	APW*	APW*	AH	AH	AH	AH	AH
116	MERSEY	AGP	AGP	AGP	AGP	AGP	AGP	AGP
118	MILING	AGP	AGP	AGP	AGP	AGP	AGP	AGP
120	MILLEWA	ASW	AGP	AGP	AGP	AGP	AGP	AGP
119	MINTO	AGP	AGP	AGP	AGP	AGP	AGP	AGP
315	MIRA	ASW	ASW	APW	ASW	ASW	ASW	ASW
208	MISKLE	AGP	AGP	AGP	APH	APH	APH	APH

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326	MITRE	APW	APW	AH	APW	APW	APW	APW
121	MOKOAN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
209	MOLINEUX	AGP	AH	APW	AGP	AGP	AGP	AGP
123	MORAY	AGP	AGP	APW	AGP	AGP	AGP	AGP
267	MORE	FEED	FEED	FEED	FEED	FEED	FEED	FEED
278	MUCHMORE	FEED	FEED	FEED	FEED	FEED	FEED	FEED
336	MULGARA	APW*	APW*	APW*	AH	AH	AH	APW*
122	MULTILINE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
473	NAPAROO	FEED	FEED	FEED	FEED	FEED	FEED	FEED
124	NOONGAR	AGP	AGP	AGP	AGP	AGP	AGP	AGP
284	NYABING T/N	ASW	AGP	AGP	AGP	AGP	AGP	AGP
126	OLYMPIC	AGP	AGP	AGP	AGP	AGP	AGP	AGP
125	OSPREY	AGP	AGP	AGP	AH	APW	AGP	AGP
239	OUYEN	AGP	AH	AH	AH	APW	APW	AGP
204	OWLET	AGP	AGP	AGP	AGP	AGP	AGP	AGP
130	OXLEY	AGP	APW	APW	AGP	AGP	AGP	AGP
335	PARDALOTE	ASW*	ASW*	ASW*	APW	APW	ASW*	ASW*
268	PATERSON	FEED	FEED	FEED	FEED	FEED	FEED	FEED
461	PEAKE	APW*	AH	AH	AH	APW*	APW*	APW*
193	PELSART	AGP	AGP	AGP	APH	APH	APH	APH
308	PERENJORI	APW	ASW	ASW	ASW	ASW	ASW	ASW
212	PEROUSE	AGP	AGP	AGP	AGP	AGP	AGP	APH
273	PETREL	ASW	ASW	ASW	ASW	ASW	ASW	ASW
325	PETRIE	APW*	APW*	APW*	AH*	APH	APH	APH
129	PINEHEAD	AGP	AGP	AGP	AGP	AGP	AGP	AGP
132	PINNACLE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
414	PUGSLEY	ASW*	APW	APW	APW	ASW*	ASW*	ASW*
131	PUSA FLORA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
412	QAL2000	ASF1	AGP*	AGP*	ASF1	ASF1	ASF1	ASF1
421	QALBIS	AGP*	AGP*	AGP*	ASF1	ASF1	ASF1	AGP*
137	QUARRION	AGP	AGP	AGP	AGP	AGP	AGP	AGP
134	RAVEN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
432	REES T/N	APW	APW*	APW*	APW*	APW*	AH	AH
213	REEVES	AGP	AGP	AGP	AGP	AGP	AGP	AGP
136	ROBIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
188	ROSELLA	AGP	ASW	ASWN	ASWN	ASWN	ASWN	AGP
177	ROWAN	AGP	AGP	AGP	AGP	AGP	AGP	AH
415	RUBRIC	FEED	FEED	FEED	FEED	FEED	FEED	FEED
406	RUDD	FEED	FEED	FEED	FEED	FEED	FEED	FEED
138	SABRE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
485	SAINTLY	FEED*	ADR	FEED*	FEED*	FEED*	FEED*	FEED*
190	SCHOMBURGK	AH	AH	AGP	AGP	AGP	AGP	AGP
143	SCIMITAR	AGP	AGP	AGP	AGP	AGP	AGP	AGP
140	SCOTTIE	AGP	AGP	AGP	AGP	AGP	AGP	AGP
139	SEAFOAM	AGP	AGP	AGP	AGP	AGP	AGP	AGP
141	SEEWARI	AGP	AGP	AGP	AGP	AGP	AGP	AGP
448	SENTINEL3R	ASW	ASW	ASW	ASW	ASW	ASW	AGP
317	SERI 82	FEED	FEED	FEED	FEED	FEED	FEED	FEED
144	SHERPA	AGP	AGP	AGP	AGP	AGP	AGP	AGP

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
146	SHORTIM	AGP	AGP	AGP	AGP	AGP	AGP	AGP
217	SHRIKE	APW	AGP	AGP	AGP	AGP	AGP	AGP
275	SILVERSTAR	APW	AH	AH	AH	AH	AH	APW
187	SKUA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
291	SNIPE	AGP	AGP	AGP	ASF1	ASF1	ASF1	AGP
148	SONGLEN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
135	SPEAR	APW	APW	APW	AGP	AGP	AGP	AGP
150	SPICA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
234	STILETTO	APW	APW	APW	ASW	ASW	ASW	AGP
237	STRETTON	APW	ASW	ASW	ASW	ASW	ASW	ASW
330	STRZELECKI	APW*	APW*	APW*	AH	AH	APH	APH
413	STYLET	ASW*	APW	ASW*	ASW*	ASW*	ASW*	ASW*
152	SUMMIT	AGP	AGP	AGP	AGP	AGP	AGP	AGP
159	SUNBIRD	AGP	AGP	AGP	ASW	ASW	ASW	AGP
216	SUNBRI	AGP	AGP	AH	APH	APH	APH	APH
259	SUNBROOK	APW	APW	AH	AH	APH	APH	APH
161	SUNCO	AH	APW	AH	APH	APH	APH	APH
185	SUNDOR	AGP	AGP	AGP	AGP	AGP	AGP	AGP
147	SUNECA	AGP	AGP	AGP	APH	APH	APH	APH
186	SUNELG	AH	AH	APW	AH	AH	AH	AH
207	SUNFIELD	AGP	APW	AGP	AGP	AGP	AGP	AGP
151	SUNKOTA	AGP	AGP	AGP	APH	APH	APH	AGP
229	SUNLAND	AGP	AGP	AGP	APH	APH	APH	APH
276	SUNLIN	APW	APW	APW	APH	APH	APH	APH
230	SUNMIST	AGP	AGP	AGP	APH	APH	APH	APH
296	SUNSOFT 98	AGP	AGP	AGP	ASWN	ASWN	ASWN	AGP
145	SUNSTAR	AGP	AGP	AGP	APH	APH	APH	AGP
231	SUNSTATE	AH	AH	AH	APH	APH	APH	APH
246	SUNVALE	AH	AH	AH	APH	APH	APH	APH
486	SUNVEX	APW*	APW*	APW*	AH	AH	APH	APH
454	SUNZELL	APW*	APW*	AH	APH	AH	AH	AH
447	SW FLAMENCO	FEED	FEED	FEED	FEED	FEED	FEED	FEED
440	SW ODIEL	AGP	ASW	ASW	AGP	AGP	AGP	AGP
242	SWIFT	AGP	APW	APW	AH	APW	APW	AGP
277	TAILORBIRD	APW	APW	AH	AH	AH	AH	AH
155	TAKARI	AGP	AH	AGP	AGP	AGP	AGP	AGP
288	TAMAROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
437	TAMMARIN ROCK	AH	APW*	APW*	APW*	APW*	APW*	APW*
252	TAMMIN	FEED	FEED	FEED	FEED	FEED	FEED	FEED
154	TARSA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
232	TASMAN	AGP	AGP	AGP	AGP	AH	AH	AH
202	TATIARA	AGP	ASF1	ASF1	ASF1	AGP	AGP	AGP
156	TEAL	AGP	AGP	AGP	AGP	AGP	AGP	AGP
289	TENNANT	FEED	FEED	FEED	FEED	FEED	FEED	FEED
249	TERN	AGP	AGP	AGP	ASW	ASW	ASW	AGP
157	TERRA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
334	THORNBILL	AGP	AGP	ASF1	ASF1	AGP	AGP	AGP
158	TIMGALEN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
160	TIMSON	AGP	AGP	AGP	AGP	AGP	AGP	AGP

Code	Variety Name	WA	SA	VIC	SNSW	CNSW#	NNSW	QLD
162	TINCURRIN	ASF1	ASF1	AGP	AGP	AGP	AGP	AGP
163	TORRES	AGP	AGP	AGP	AGP	AGP	AGP	AGP
235	TRIDENT	AGP	ASW	ASW	ASW	ASW	ASW	AGP
253	TRILLER	FEED	FEED	FEED	FEED	FEED	FEED	FEED
165	VASCO	AGP	AGP	AGP	AGP	AGP	AGP	AH
233	VECTIS	AGP	ASF1	ASF1	ASF1	AGP	AGP	AGP
433	VENTURA	APW*	APW*	AH	AH	AH	AH	AH
199	VULCAN	AGP	ASW	APW	AH	APW	APW	AGP
493	WAAGAN	AGP*	ASW	ASW	ASW	AGP*	AGP*	AGP*
164	WAGIN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
166	WARATAH	AGP	AGP	AGP	AGP	AGP	AGP	AGP
243	WARBLER	FEED	FEED	FEED	FEED	FEED	FEED	FEED
168	WARIGAL	AGP	AH	AGP	AGP	AGP	AGP	AGP
170	WARIMBA	AGP	AGP	AGP	AGP	AGP	AGP	AGP
281	WESTONIA [T/N]	APW	APW	ASW	ASW	ASW	ASW	ASW
298	WHISTLER	AGP	AGP	ASW	ASW	ASW	ASW	AGP
171	WIALKI	AH	AGP	AGP	AGP	AGP	AGP	AGP
173	WILGOYNE	AH	AGP	AGP	AGP	AGP	AGP	AGP
172	WINDEBRI	AGP	AGP	AGP	AGP	AGP	AGP	AGP
174	WINGLEN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
244	WOLLAROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
176	WONGOONDY	AGP	AGP	AGP	AGP	AGP	AGP	AGP
283	WORRAKATTA	ASW	ASW	ASW	ASW	ASW	ASW	ASW
178	WREN	AGP	AGP	AGP	AGP	AGP	AGP	AGP
338	WYALKATCHEM [N]	APW	APW	APW	APW	APW	APW	ASW*
321	WYLAH	APW*	APW*	APW*	AH	AH	AH	APW*
179	WYUNA	AGP	ASF1	ASF1	ASF1	AGP	AGP	AGP
203	YALLAROI	ADR	ADR	ADR	ADR	ADR	ADR	ADR
262	YANAC	ASW	APW	APW	APW	APW	APW	ASW
472	YANDANOOKA	ASWN	AGP	AGP	AGP	AGP	AGP	AGP
223	YARRALINKA	AGP	ASW	AGP	AGP	AGP	AGP	AGP
450	YENDA	AGP*	ASF1	ASF1	ASF1	AGP*	AGP*	AGP*
314	YITPI P	AH	AH	AH	AH	APW*	APW*	APW*
444	YOUNG	APW*	AH	AH	AH	APW	APW	APW*
481	ZEBU	FEED	FEED	FEED	FEED	FEED	FEED	FEED
180	ZENITH	AGP	AGP	AGP	AGP	AGP	AGP	AGP
490	ZIPPY	APW	ASW*	ASW*	ASW*	ASW*	ASW*	ASW*
482	ZULU	FEED	FEED	FEED	FEED	FEED	FEED	FEED

Legend

\# The CNSW zone comprises the following receival sites; Albert, Alectown, Bogan Gate, Condobolin, Euabolong West, Gobondery, Gunningbland, Kadungle, Kiacatoo, Mickibri, Ootha, Parkes, Peak Hill, Tomingley, Tottenham, Trundle, Tullamore, Wyanga, Yarrabandi, Yeoval and Yethera

N Indicates varieties that are eligible for receival into APWN

T Indicates varieties that are eligible for receival into APWT

SECTION 5 METHODS & PROCEDURES

5.1 Introduction

The following section details methods and procedures to be used for the assessment of various quality parameters as outlined in this Manual.

The methods outlined are either Reference Methods or Field Assessment Methods. Field Assessment Methods are included as a guide to industry where Reference Methods may not be able to be implemented. Note that Field Assessment Methods must equate to the Reference Method for the applicable test method.

In all instances of disputes, test results produced by trade-certified equipment take precedence over non-trade certified equipment and methods. Where the dispute involves only non trade-certified equipment or test methods, the reference method takes precedence over the field assessment method..

Depending on the test to be conducted, variations may exist due to equipment used.

Procedures outlined are a guide for industry. Industry is free to develop their own Operational Procedures for each test and activity based on their own circumstances. At all times industry use of apparatus outlined in this Standard must comply with the manufacturers' recommendations for occupational health and safety and training.

5.2 Sampling

5.2.1 Definitions

This is the standard procedure used to draw a sample of the commodity from a bulk unit tendered for delivery to enable tests to be conducted on the commodity for the purposes of determining its quality.

- A primary sample is an individual probed sample taken from the lot presented for sampling
- A composite sample is the combined primary samples taken from the lot to be sampled, and is representative of the entire lot
- A sub sample is the sample taken from the mixed composite sample for the purposes of conducting quality tests, and is representative of the entire lot

5.2.2 Scope

Wheat is traded on the basis of quality tests conducted on lots of wheat presented for sale or delivery to end users. Obtaining representative samples is critical to ensuring test results reflect the true quality of these lots.

This procedure is applicable to all cereal grains, pulses and oilseeds.

5.2.3 Apparatus

- Manual sampling probe (double tube compartment probe, one inside the other, equipped with spiralled ports that open sequentially from bottom to top).
- Vacuum or pneumatic probe (an alternative to the manual sampling probe and consisting of a hand held or remotely controlled probe which retrieves grain through the use of a vacuum or other air movement system).
- Mixing bucket (including other associated equipment such as mini-auger suitable for mixing sample, optional).
- Sample dividing apparatus (optional).

5.2.4 Reagents

Not Applicable.

5.2.5 Procedure

Sample Collection guidelines for collecting a representative sample

- The surface of the grain should be fully exposed prior to sampling to allow for effective visual inspection. At this point, the load should be scanned for any defects or contaminants.

- The probe to be used should be of a sufficient length in order to obtain a sample from as close as possible to the bottom of truck.

- A primary sample must be drawn for assessment by thrusting the sampling probe as vertically and as deep as possible into the load.

- At least one probe must be taken from the front, middle and rear of each bulk unit.

- If more than one unit is delivered, samples must be drawn from each bulk unit as described above.

- If the bulk units are of visibly different quality, or if required at the Receival Agents discretion, different samples and grade classification may be undertaken for each separate bulk unit.

- If the declared varietal composition or paddock where the grain was grown is different for each unit tendered for delivery, or more than one variety is commingled in each delivery unit, then a separate assessment of each unit must be conducted.

- Each primary (probed) sample must consist of at least one litre of grain.

- A composite sample from each load tendered for delivery shall consist of the following minimum quantities and number of probes:

Load Size	Sample Size (minimum)
10 tonnes or less	3 litres
Over 10 tonnes up to 20 tonnes	4 litres
Over 20 tonnes up to 30 tonnes	5 litres
Over 30 tonnes up to 40 tonnes	6 litres
Over 40 tonnes up to 50 tonnes	7 litres
Over 50 tonnes up to 60 tonnes	8 litres
Over 60 tonnes up to 70 tonnes	9 litres
Over 70 tonnes up to 80 tonnes	10 litres

Note – in the above table the sample size reflects the number of probe samples. For example, 4 litres equates to 4 probe samples.

Sample Mixing

- The primary samples in each probe must be collected together and thoroughly mixed in a suitable container using a mechanical device where appropriate, to form the composite sample.

- Sub samples should be drawn from the composite sample either by hand or through the use of a suitable sample dividing apparatus.

Sample Analysis

- The sub sample should then be analysed for all of the quality parameters specified in these Standards or in the Receival Agent's agreement with the buyer concerned if different from these Standards.

- Results should be entered on the Receival Agents sample receipt.

5.2.6 References

Sampling of Wheat and other Grains - AACC Method 64-70A

5.3 Moisture Assessment of Cereals – Fan Forced Oven Reference Method

5.3.1 Definitions

This is the fan forced reference method specified in National Measurement Institute legislation to be used to determine the moisture content of grain samples as loss in weight when subjected to heating.

5.3.2 Scope

This is applicable to all cereals when being tested for moisture content under laboratory conditions.

5.3.3 Apparatus

- Laboratory Mill
- Forced Draft Oven capable of being maintained at 130^0C +/- 1^0C
- Aluminium moisture dishes, 50 – 55 by 15 – 20mm with tight fitting covers
- Desiccator
- Electronic balance capable of weighing up to 100g to 4 decimal places

5.3.4 Reagents

Not applicable

5.3.5 Procedure

- Grind a 30-40g whole grain sample in a suitable mill (Perten 3303, Tecator, Cemotec or similar). Sample to be “as is”.
- Mix thoroughly and transfer 2 to 3g portions to each of 2 or more tared moisture dishes
- Cover and weight the dishes immediately
- Subtract tare weights and record weight of sample
- Clean mill between samples
- Uncover the dishes and place them in pre heated oven (130^0C) and place covers under the dishes. Evenly distribute the dishes within the oven

- Close oven door and allow temperature to stabilise and then heat for exactly 60 minutes

- Remove the dishes, quickly replace the lids and place in the desiccator

- Weigh the dishes after they reach room temperature

- Determine loss in weight as moisture as per the following equation:

$$\% \text{ Moisture} = \frac{Wtp - (Wdry - Wdish)}{Wtp} \times 100$$

Where

Wtp is the weight of the test portion before oven drying
Wdry is the weight of the dish, lid and test portion after oven drying
Wdish is the weight of the empty oven moisture dish and lid

Report result to the nearest 0.1%.

If duplicates differ by more than 0.2%, repeat the determination, otherwise, report the average of the duplicates.

5.3.6 References

- Moisture – Air Oven Methods – AACC Method 44-15A

- NMI M 8 Pattern Approval Specifications for Protein Measuring Instruments for Grain

- NMI V10 Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain

5.4 Moisture Assessment of Cereals – Brabender Oven Reference Method

5.4.1 Definitions

This is the Brabender Oven reference method used to determine the moisture content of grain samples as loss in weight when subjected to heating.

5.4.2 Scope

This is applicable to all cereals when being tested for moisture content.

5.4.3 Apparatus

- Mill - A low moisture loss mill must be used as significant levels of heat can be generated. The mill of choice is the Falling Number 3303 mill (a Wiley - using a 20 mesh screen). The Falling Number Mill 3303 is used with the setting – Wheat – 0.

- Electronic balance – accuracy = 0.001g (or better)

- Aluminium dishes - these dishes must be kept clean and weigh 11.500 + 0.005g

- Vial with well sealing screw to lid. Currently a small yellow top polyethylene container with polypropylene lid is used. Samples must be prepared and used within 24hrs.

5.4.4 Reagents

Not Applicable

5.4.5 Procedure

- Grind approx 50g of sample in accordance with relevant mill manual. Mix sample well and replace into original sample vial tightly sealing the lid. Sample must be prepared and used on the same day or prepared on the evening before.

- Make sure the dishes are clean and are resting on a clean surface (wipe with tissue). Tare the first dish and also subsequent dishes used but note the weight before taring if weight varies from 11.500 or tare varies by +/- 0.010g from tare. Recheck weight of dish to ensure within 11.500 +/- 0.005g. Dishes must also be checked before and after the season to ensure they are correct.

- Weigh out accurately 10.000 +/- 0.001g of the ground sample into an Aluminium dish. Then shake dish to obtain an even layer of sample.

- Take the weighed samples and place into the oven which has been previously switched on and heated to 130 °C. Place the dishes in the oven noting the number of the dish and its position number (1 through 9). There are ten positions in the oven (the tenth place is taken up by an empty dish for calibration purposes).

- When the oven has been loaded note the time or set a countdown timer to 60 mins once the required temperature is reached. Usually for 130°C the oven takes 10 - 15 minutes to reach the required temperature.

- When one hour has elapsed, standardise the instrument by selecting the empty dish and placing 9g in weights in the small platform between the 3 prongs on the balance and adjust the scale to 10.0 with the standard swinging freely. Moisture can then be read off for each sample in turn.

- Read the samples in the dishes consecutively recording results in the relevant worksheet.

NOTE:

- When switching the oven on make sure that the Brabender oven is level (use bubble level).

- All results are a direct reading of % w/w water.

- The minimum heating time must be adhered to (1 hour) but heating over the hour will not affect the results (up to 2 hours).

- If only a few grams of sample are available see the manufacturers hand book for the technique to be adopted.

- The weight of Aluminium dishes is to be checked at 6 monthly intervals to ensure they are within 11.500 +/-0.005g. If they are underweight they are to be discarded and replacements purchased. Do not add weight to the dish i.e. solder etc as this will breakdown over time or fall off. If they are overweight they may be cleaned with warm water and neutral detergent. Under no circumstances use abrasive or corrosive chemicals as this will lead to the dish being underweight.

5.4.6 References

- Moisture – Air Oven Methods – AACC Method 44-15A
- NMI M 8 Pattern Approval Specifications for Protein Measuring Instruments for Grain
- NMI V10 Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain

5.5 Moisture Assessment of Cereals – NIR

5.5.1 Definitions

This describes the NIR method for determination of moisture in cereal grains.

5.5.2 Scope

This procedure is applicable to all cereal grains.

5.5.3 Reagents

Not applicable.

5.5.4 Apparatus

NIR instrument approved for use for trade purposes under the conditions currently being developed by the National Measurement Institute.

5.5.5 Method

Sample to be “as is”.

Individual manufacturer instructions and procedures should be followed for operation and maintenance of NIR instruments used to determine grain moisture.

Report result to the nearest 0.1%.

5.5.6 References

- NMI M 8 Pattern Approval Specifications for Protein Measuring Instruments for Grain
- NMI V10 Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain

5.6 Protein Assessment of Cereals – Dumas Reference Method

5.6.1 Definitions

This is the Dumas reference method used to determine the crude protein content of cereal grains. Samples are incinerated in an oxygen rich atmosphere to produce oxides of nitrogen which are catalytically reduced to molecular nitrogen. Interfering combustion products are removed by selective absorption. Nitrogen concentration is then measured by a thermal conductivity detector calibrated against a standard of known nitrogen content. Protein is then calculated from nitrogen content using a known factor for each product.

5.6.2 Scope

This method is applicable to all cereal grains.

5.6.3 Apparatus

- Combustion nitrogen analyser consisting of a furnace capable of maintaining minimum operating temperature of 950^0C for pyrolysis of the sample in pure oxygen, an isolating system capable of isolating liberated nitrogen gas from other combustion products for subsequent measurement by thermal conductivity detector, a device for converting NO_x products to nitrogen or measuring NO_2, and a detector system capable of interpreting detector response as percent N.

- Grinder or mill that produces ground material with particle size $\leq$ 0.8mm and with minimal heat generation.

- Analytical balance accurate to at least 0.0005g.

5.6.4 Reagents

- Gases – carrier gas (usually helium), pure (99.9%) oxygen, compressed air (used to drive component parts of the analyser)

- Reference calibration standard – TRIS - high purity (hydroxymethyl) aminomethane or Nicotinic Acid

5.6.5 Procedure

- Follow procedures to set up the analyser and operating gas systems as specified by the manufacturer. Perform the necessary adjustments for gas flows and pressures, combustion temperatures and times and start up equilibrium times to ensure optimal analysis conditions for the type of sample to be analysed.

- Calibrate the instrument by following the manufacturer's guidelines using the appropriate calibration standard. The calibration should be cross checked against a second high purity standard – Nicotinic Acid or EDTA. Blanks, as stipulated by the manufacturer, should be run prior to analysis to establish the baseline. These should include consideration of an atmospheric blanks factor or a sample blank similar to samples under test.

- Grind an amount of sample sufficient to represent the original material, and to perform a number of nitrogen determinations as required. Sample to be "as is".

- Weigh accurately to 0.001g an amount of ground sample, as recommended by the manufacturer, into the appropriate sample capsule and place the sample into the instrument for analysis.

- If presenting the sample to the instrument in a pellet form, adjustments may be required to burn temperatures, times and blanks to compensate for the absence of a sample capsule.

- Blank and standard control/check samples should be repeated periodically (as a guide every 10 samples) during each analytical run to monitor any drift. Standard drift corrections and recalculation of samples should be made after analysis if the drift exceeds specification.

- Calculation of nitrogen content is usually performed automatically by the instrument data processing system or associated software.

- Results should be expressed as percent (5) nitrogen to two decimal places. For conversion to protein content "as is" multiply wheat nitrogen by 5.7%. Convert protein content to an 11% moisture basis for wheat for the nitrogen/protein values where necessary. Report result to the nearest 0.1%.

- Analysis should be repeated if the difference between duplicate test results exceed the respective repeatability values (r) shown in the following table:

Grain	**Mean % N**	**Repeatability**		**Reproducibility**	
		r	**RSD_r %**	**R**	**RSD_r %**
Barley	1.85	0.06	1.22	0.11	2.09
Barley malt	1.49	0.04	0.99	0.08	1.97
Sorghum	1.47	0.05	1.15	0.07	1.69
Wheat durum	2.09	0.04	0.64	0.08	1.32
Wheat*	1.97	0.03	0.61	0.09	1.69
Wheat APH	2.54	0.03	0.46	0.08	1.15
Wheat flour	2.03	0.03	0.46	0.09	1.56

* Wheat other than the type specified in the above table

- Suitable fineness of grind gives a relative standard deviation (RSD) of ≤ 2.0% for ten successive determinations of nitrogen in ground test material. A larger RSD indicates the need for a finer grind or a larger analytical test weight, assuming that the instrument has been properly set up.

- For each batch the accuracy of the system is demonstrated by making ten successive determinations of nitrogen in nicotinic acid or tryptophan (different materials from calibration standard). Means of determinations must be ≤ ± 0.15 of respective theoretical values with standard deviation ≤ 0.15. Failure to achieve these values indicates the need for recalibration or optimisation of instrument settings.

- Accuracy checks should be carried out (1) On instrument installation and reinstallation following repairs and service; (2) When a new batch of working reference material is used; (3) After experiencing problems in instrument set up.

5.6.6 References

- Crude Protein Reference Method - AACC Method 46-30

- Dumas Total Nitrogen Determination – CCD Method 02-03, RACI

- Dumas Combustion – Total Nitrogen Determination (Reference Method) Annex A - National Measurement Institute Document M8

- Sweeney, R.A. (1989). JAOAC 72: 770.

- NMI M 8 Pattern Approval Specifications for Protein Measuring Instruments for Grain

- NMI V10 Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain

5.7 Protein Assessment of Cereals – NIR

5.7.1 Definition

This describes the NIR method for determination of protein in cereal grains.

5.7.2 Scope

This procedure is applicable to all cereal grains.

5.7.3 Reagents

Not applicable.

5.7.4 Apparatus

NIR instrument approved by the National Measurement Institute for use for trade purposes under the conditions stipulated in NMI V10 (Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain), and NMI M8 (Pattern Approval Specifications for Protein Measuring Instruments for Grain).

5.7.5 Method

Sample to be “as is”.

Individual manufacturer instructions and procedures should be followed for operation and maintenance of NIR instruments used to determine grain protein.

Report result to the nearest 0.1%.

5.7.6 References

- NMI M 8 Pattern Approval Specifications for Protein Measuring Instruments for Grain
- NMI V10 Uniform Test Procedures for the Verification, Certification and In Service Inspection of Protein Instruments for Grain

5.8 Test Weight Assessment - Schopper Chondrometer Reference Method

5.8.1 Definitions

The Schopper Chondrometer is used for the measurement of Grain Density (Density is also known as “Bushel Weight”, “Test Weight” or “Hectolitre Weight”).

5.8.2 Scope

This method is applicable to all cereal grains.

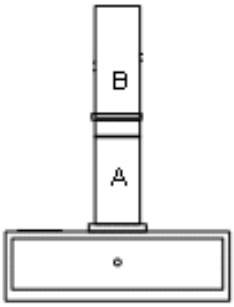
5.8.3 Apparatus

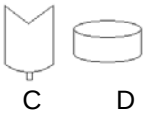
- 1L Schopper Calibrated Chondrometer
- 2 decimal place balance
- Plastic bowl

5.8.4 Reagents

Not applicable

5.8.5 Procedure





- Secure bottom half of cylinder A to base plate on the chondrometer box.
- Ensure the sliding divider C is in the slot on cylinder A.
- Place weight D on top of sliding divider.
- Secure top half of cylinder B to the bottom half A.

- Ensure the slider is closed and pour grain in the cylinder at a constant rate until full to the top.
- Pull the sliding divider out and the weight will move down, drawing the grain down with it (you will hear it moving down).
- Once the weight D is at the bottom, replace the sliding divider back in the slot.
- Carefully tip the cylinder upside down and tip out all the grain remaining above the divider. Make sure to catch the weight D as it drops down.
- Place a plastic container on the electric balance and tare to read zero.
- Remove the blade from the chondrometer and tip the measured litre of grain into the plastic container and weigh.
- The weight is in grams and needs to be multiplied by 0.1 (divided by 10) to obtain a density in kg/hl.
- Always undertake analysis in duplicate and average results.
- Report the result to one (1) decimal place.

5.8.6 References

Test Weight Per Bushel - AACC Method 55-10

National Measurement Institute General Certificate of Approval No 4/10/0

5.9 Test Weight Assessment – Franklin Mark 11 Chondrometer Reference Method

5.9.1 Definitions

This is the Franklin Mark 11 Chondrometer reference method to determine the density of cereal grains (otherwise known as the Test Weight) expressed as kilograms per hectolitre.

5.9.2 Scope

This method is applicable to all cereal grains.

5.9.3 Apparatus

- Franklin Mark II Drop Weight Trade Certified chondrometer
- Pre filling Cup

5.9.4 Reagents

Not applicable.

5.9.5 Procedure

- Assemble the instrument together and place the calibration weight onto the top of the measuring cylinder.
- Place the measuring cylinder with weight on the hook at the end of the measuring beam.
- Calibrate the instrument by moving the sliding weight to the position corresponding to 40kg/hl on the measuring beam. The beam should balance equidistantly between the top and bottom of the square space at the other end of the beam.
- If the beam is not balanced, turn the calibration screw at the other end of the beam until the correct setting is achieved.
- Remove the calibration weight. The instrument is then calibrated.
- Insert the cutter bar into the bottom measuring cylinder, and place the drop weight on top of the cutter bar.
- Fit the top filling cylinder onto the measuring cylinder.
- Fill the pre filling cup with grain. Sample to be “as is”.

- Steadily pour the grain from the pre filling cup with one hand into the top filling cylinder until it is full whilst holding both cylinders together.
- Withdraw the cutter bar in a single swift motion.
- Re-insert the cutter in the slit and push it through the grain with a single firm stroke.
- Remove the top filling cylinder from the measuring cylinder and discard the grain remaining above the cutter, while holding the cutter in place.
- Remove the cutter and suspend the measuring container from the measuring beam of the chondrometer.
- Adjust the sliding weight on the beam until the instrument is balanced.
- Read the test weight of the graduated balance beam at the point indicated by the sliding weight and record the result in kilograms per hectolitre.
- Report the result to one (1) decimal place.

5.9.6 References

Test Weight Per Bushel - AACC Method 55-10

ISO7971-2

National Measurement Institute General Certificate of Approval No 4/10/0

5.10 Test Weight Assessment – Kern 222 Chondrometer Reference Method

5.10.1 Definition

This is the Kern 222 Trade Certified Chondrometer reference method to determine the density of cereal grains (otherwise known as the test weight) expressed as kilograms per hectolitre.

5.10.2 Scope

This method is applicable to all cereal grains.

5.10.3 Apparatus

- Kern 222 Trade Certified Chondrometer with valid Regulation 13 certificate.
- Electronic balance 0.01g resolution.

5.10.4 Reagents

Not applicable

5.10.5 Procedure

- Assemble the measuring container with the grain cutter inserted in the slit. Place the brass piston on top of the cutter blade. Connect the filling hopper securely on the top of the measuring container.
- Fill the pre-filling cup with grain. Grain sample to be “as is”.
- Empty the pre-filling cup out onto a large sample tray and manually remove any foreign material e.g. whiteheads, straw, barley, lupins, sticks stones etc.
- Pour the remaining grain from the sample tray back into the pre-filling cup. Ensure that the pre filler cup is filled up to or above the internal filling line/groove.
- Steadily pour the grain from the pre-filling cup into the filling hopper until the filling hopper is full.
- Grasp the measuring container firmly with one hand and with the other hand withdraw the cutter in a single swift motion.
- Re-insert the grain cutter in the slit and push it through the grain with a single firm stroke.

- Remove the filling hopper from the measuring container and discard the grain remaining above the cutter, while holding the cutter in place.

- Remove the cutter and return the base bucket to an upright position and then withdraw the cutter.

- Place the Steel Bowl onto the balance and press the T (Tare) button, ensure Zeros are displayed.

- Pour the grain from the bucket into the steel bowl.

- The weight in grams will appear on the display of the balance. This figure is referred to as the weight in grams per litre.

- All numerical results are to be written down to two decimal places.

5.10.6 References

ISO Method 7971-2

National Measurement Institute General Certificate of Approval No 4/10/0

5.11 Unmillable Material Assessment – Reference Method

5.11.1 Definition

This is the reference method used to determine the percentage by weight of Unmillable Material Above the Screen and Unmillable Material Below the Screen (Screenings), including Small Foreign Seeds.

5.11.2 Scope

This method is applicable to wheat.

5.11.3 Apparatus

Agtator Shaking Device

Wheat Screen 2.00mm with the following specifications:

- 300mm diameter discs x 0.8mm stainless steel, perforated with 12.7mm x 2.00mm slots, hit and miss on ends with 4.77mm end bar and 2.0mm side bar.
- Slot width as assessed by an Engineers Pin Gauge is to be 2.00 mm ± 0.01 mm. Pin Gauge, being 2.01mm and 1.99, needs to have a valid Regulation 13 certificate.
- Compliance testing shall be undertaken by randomly selecting 74 slots and measuring using the above Gauge. 0 to 25 slots is an acceptable failure rate. Refer to separate procedure.

Analytical balance accurate to at least 0.01g

5.11.4 Reagents

Not applicable.

5.11.5 Procedure

- Obtain a certified half litre sample of grain. Sample to be “as is”.
- Place the wheat screen on top of the Agtator platform with the slots aligned toward the front of the Agtator. Ensure the wheat screen is clean, smooth, dry and free of grain residues in the slots.
- Ensure the Agtator is set to perform 40 to and fro movements over a period of approximately 68 seconds.

- Pour the half litre of grain in one movement onto the screen surface. No additional movement or spreading of the sample over the screen is to occur.

- Turn on the Agtator and allow it to run until the 40 movements have been completed.

- Gently remove the screen and pan from the Agtator and detach the screen from the pan.

- Calculate Screenings percentage - Weigh the contents of the pan on an appropriate top pan balance and calculate the percentage as follows:

  $$\text{Screenings by wt (\%)} = \frac{\text{Screenings Weight}}{\text{Total Weight}} \times 100$$

- Calculate Small Foreign Seeds percentage - Separate any Small Foreign Seeds (SFS) as listed in the Definitions Section of these Standards from the Screenings fraction and weigh these separately.

  $$\text{SFS by wt (\%)} = \frac{\text{SFS Weight}}{\text{Total Weight}} \times 100$$

- Calculate Unmillable Material Above the Screen percentage - Separate any Unmillable Material Above the Screen (whiteheads with grains removed, chaff, backbone, Wild Radish pods, Milk Thistle pods, other Foreign Seed Pods not otherwise listed whether whole or in pieces and other light material) and weigh separately.

  $$\text{Unmillable Material Above the Screen (\%)} = \frac{\text{Unmillable Weight}}{\text{Total Weight}} \times 100$$

- Report all results to the nearest 0.1%.

5.11.6 References

No go gauge with Regulation 13 certificate.

5.12 Falling Number Assessment – Reference Method

5.12.1 Definitions

This is the reference method for determination of Falling Number and is based on the unique ability of alpha amylase to liquefy a starch gel. Strength of the enzyme is measured by Falling Number defined as the time in seconds required to stir plus the time it takes to allow the stirrer to fall a measured distance through a hot aqueous gel undergoing liquefaction.

5.12.2 Scope

This method is applicable to wheat.

5.12.3 Apparatus

Perten Falling Number apparatus, including standardised precision viscometer tubes with close tolerances, inside diameter ± 0.02mm outside diameter ± 0.3mm length ± 0.3mm.

Thermometer, calibrated in 0.1^0C, and certified to ± 0.3^0C.

Sample Mill. Must produce meal with particle size distribution as follows; <500µm, 0-10%; >210 but <500µm, 25-40%; <210µm, 75-50%. The recommended instrument is the Perten 3100 Mill with 0.8mm sieve.

Automatic Pipette should be capable of delivering 25 ± 0.3ml.

Analytical balance accurate to at least 0.01g

5.12.4 Reagents

Distilled water

5.12.5 Method

- Start the Falling Number instrument by following the manufacturer's instructions. Ensure the bath is filled with distilled water and the instrument has reached full operating temperature before being used.

- Grind a minimum 250g sample of whole grain using the designated mill. Sample to be "as is".

- Weigh 7.00 ± 0.05 g of meal into a dry falling number tube.

- Add 25 ml of distilled water from the automatic dispenser. Insert a rubber stopper into the top of the tube and shake tube in an upright position 20-30 times (up and down) or more if necessary) until mixed. Make sure all flour is suspended by upending. Alternatively the unit may shake the tubes.

- Use the viscometer stirrer to scrape down the slurry coating the upper part of the tube, and scrape all slurry from the stopper.

- Place the tube and the viscometer stirrer into the water bath within 30 to 60 seconds after mixing. Start the Falling Number apparatus immediately afterward.

- At the conclusion of the test, record the time in seconds.

- Remove the tube and appropriately clean the stirrer, tube and stopper using cold water and brush. Distilled water may assist removal of all traces of the starch gel material. Clean the mill of all residues retained from the sample.

- Report the Falling Number value to the nearest second.

5.12.6 References

Falling Number Determination – AACC Method 56-81B

5.13 Defective Grains Assessment – Reference Method

5.13.1 Definitions

This describes the method of assessment of deliveries of wheat for the various types of defective grains described in these wheat Standards. These are defined as:

Count per 300 grains	Count per half litre	Count per entire load
Sprouted*	Field Fungi	Heat Damaged, Bin Burnt, Storage Mould Affected or Rotted
Stained		All Smuts except Loose Smut
Pink Stained		
Dry Green or Sappy		
Over-Dried Damaged		
Frost Damaged		
Takeall Affected		
Insect Damaged		
Non-vitreous (durum only)		

* For Sprouted grain, GTA Standards specify both a visual tolerance by count, and a Falling Number minimum. Please refer to the procedure for determining whether a Falling Number test is required during the field evaluation process which is detailed separately.

5.13.2 Scope

This method is applicable for all deliveries of wheat.

5.13.3 Apparatus

Wheat Screen 2.00mm with the following specifications:

- 300mm diameter discs x 0.8 mm stainless steel, perforated with 12.7mm x 2.00mm slots, hit and miss on ends with 4.77mm end bar and 2.0mm side bar.

- Slot width as assessed by an Engineers Pin Gauge is to be 2.00 mm ± 0.01 mm. Pin Gauge, being 2.01mm and 1.99, needs to have a valid Regulation 13 certificate.

- Compliance testing shall be undertaken by randomly selecting 74 slots and measuring using the above Gauge. 0 to 25 slots is an acceptable failure rate. Refer to separate procedure.

Visual Recognition Standards, with the following photographic standards being recognised by GTA:

- Grain Quality Visual Recognition Standards – Australian Grains Centre, Co-operative Bulk Handling Ltd, October 2004.
- Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition Revised, GrainCorp Operations Ltd

A 300 grain tray or mechanism capable of holding greater than 300 grains

5.13.4 Reagents

Not applicable

5.13.5 Method

- Sample to be “as is”.

- For Defective grains with tolerances above zero, assessment is made on the half litre sample on grain remaining above the 2.00 mm screen after the Unmillable Material assessment has been conducted.

- For nil tolerance defects, the tolerance (rejection of the load) can apply if the defect is detected at any stage of the delivery or testing process, including in the truckload before sampling, in the probe sample, in the half litre sample or during discharge into the receival hopper after assessment.

- Following sieving, the grain remaining on the top screen should be examined under conditions of good lighting for a period of at least 30 seconds but no more than 60 seconds. If defective grains are found, the level of defect shall be determined using a 300 grain tray, except for Field Fungi Affected which shall be determined on the full half litre sample. Instruments of magnification may be used to assist the determination of the level of visually defective grains present in the sample.

- If defective grains which have a tolerance based on % in a 300 grain sample are detected, a small sub sample should be drawn from across the top of the screen, and placed on the open 300 grain tray. Surplus grain should be removed from the tray, and attempts made to fill all 300 holes. The lid should then be slid shut, inverted, and the 300 grains emptied onto the bottom inspection tray.

- The assessment for Field Fungi Affected grains shall be conducted on the entire half litre sample.

- Each grain should be examined to determine if it is classified as defective. Note one kernel may have more than one defect. Each defect type present on the grain is required to be counted.

- The defective grains percentage can be assessed with the assistance of the GTA Approved photographic standards or objective measurement instruments where appropriate.

- Report all applicable results to the nearest 0.1% or nearest number per half litre whichever is applicable.

5.13.6 References

Grain Quality Visual Recognition Standards – Australian Grains Centre, Co-operative Bulk Handling Ltd, October 2004.

Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition Revised, GrainCorp Operations Ltd.

5.14 Defective Grain Assessment of Sprouted Grain – Field Evaluation

5.14.1 Definitions

This is the field evaluation procedure for the assessment of sprouted wheat. When sprouted grain is detected in wheat deliveries and load by load testing with the Falling Number unit does not occur, this procedure is to be implemented in some form. This procedure is a guide only. Industry must ensure that any procedure used that deviates from load by load testing with the Falling Number unit complies with their customer requirements and the applicable Trading Standard.

5.14.2 Scope

This procedure is applicable to all wheat deliveries.

5.14.3 Apparatus

Wheat Screen 2.00mm with the following specifications

- 300mm diameter discs x 0.8mm stainless steel, perforated with 12.7mm x 2.00mm slots, hit and miss on ends with 4.77mm end bar and 2.0mm side bar.
- Slot width as assessed by an Engineers Pin Gauge is to be 2.00 mm ± 0.01 mm. Pin Gauge, being 2.01mm and 1.99, needs to have a valid Regulation 13 certificate.
- Compliance testing shall be undertaken by randomly selecting 74 slots and measuring using the above Gauge. 0 to 25 slots is an acceptable failure rate. Refer to separate procedure.

Analytical balance accurate to at least 0.01g

Visual Recognition Standards with the following photographic standards being recognised by GTA:

- Grain Quality Visual Recognition Standards – Australian Grains Centre, Co-operative Bulk Handling Ltd, October 2004.
- Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition, GrainCorp Operations Ltd

A 300 grain tray or mechanism capable of holding greater than 300 grains

Falling Number apparatus (see Falling Number test method)

5.14.4 Reagents

Not applicable

5.14.5 Method

- Sample to be “as is”.

- Following sieving, the grain remaining on the top screen should be examined under conditions of good lighting for a period of at least 30 seconds but no more than 60 seconds. If sprouted grains are found, the level of defect shall be determined using a 300 grain tray. Instruments of magnification can be used to assist the determination of the level of sprouted grains present in the sample.

  Nil tolerance applies

  - If sprouted grains are detected and a nil tolerance applies the load is rejected.

  - If permitted under the Storage and Handling Agreement another suitable testing process is conducted. Refer to Falling Number testing method or procedure below.

  Nil tolerance does not apply or alternative procedure is approved for use

  - If sprouted grains are detected, a small sub sample should be drawn from across the top of the screen, and placed on the open 300 grain tray. Surplus grain should be removed from the tray, and attempts made to fill all 300 holes. The lid should then be slid shut, inverted, and the 300 grains emptied onto the bottom inspection tray.

  - If 1% or more sprouted grains are present (more than 3 grains per 300) conduct a Falling Number test on that load and classify accordingly.

  - If less than 1% sprouted grain is found (less than 3 grains per 300) the Falling Number test is optional, providing appropriate procedures are employed by the Receival Agent to ensure that the Falling Number result on the running samples compiled for the storage unit into which the loads are being delivered is maintained at or above the limits specified for the grade being received.

- It should be noted that a Falling Number result always overrides the sprouted grain tolerance for each wheat delivery.

- Where a Falling Number result is reported, report result to the nearest second.

- If results of the visual count of sprouted grains are reported, report result to the nearest 0.1%.

5.14.6 References

Not applicable

5.15 Contaminants Assessment – Reference Method

5.15.1 Definitions

This describes the method of assessment of deliveries of wheat for the various types of Contaminants described in these wheat Standards. The various contaminant types and their assessment methods are described in this method as follows:

Length in cm per half litre	% by Count 300 grain	Count per half litre	% by weight in half litre	Count per entire load
Ryegrass Ergot	Bread wheat (durum deliveries only)	All Weed Seeds except Type 2, includes Foreign Seed Pods where specified	Other Non-Objectionable Material	Chemicals Not Approved for Wheat or in Excess of the MRL
		Cereal Ergot	Small Foreign Seeds	Objectionable Material
		Earcockle	Unmillable Material Above the Screen*	Pickling Compounds
		Earth		Stored Grain Insects and Pea Weevil - Live
		Insects Large – Live or Dead		Type 2 weed seeds
		Insects Small – Live or Dead		
		Loose Smut		
		Sand		
		Snails		

* May or may not include a contaminant

5.15.2 Scope

This method is applicable for all deliveries of wheat.

5.15.3 Apparatus

Wheat Screen 2.00mm with the following specifications:

- 300mm diameter discs x 0.8mm stainless steel, perforated with 12.7mm x 2.00mm slots, hit and miss on ends with 4.77mm end bar and 2.0mm side bar.

- Slot width as assessed by an Engineers Pin Gauge is to be 2.00 mm ± 0.01 mm. Pin Gauge, being 2.01mm and 1.99, needs to have a valid Regulation 13 certificate.

- Compliance testing shall be undertaken by randomly selecting 74 slots and measuring using the above Gauge. 0 to 25 slots is an acceptable failure rate. Refer to separate procedure.

Analytical balance accurate to at least 0.01g

Visual Recognition Standards with the following photographic standards being recognised by GTA:

- Grain Quality Visual Recognition Standards – Australian Grains Centre, Co-operative Bulk Handling Ltd, October 2004.

- Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition, GrainCorp Operations Ltd

- Seed Impurities of Grain. An Identification Kit, 3rd Edition, GrainCorp Operations Ltd 1998

A 300 grain tray or mechanism capable of holding 300 grains or greater

Mesh Screen (optional)

5.15.4 Reagents

Not applicable.

5.15.5 Method

- Sample to be “as is”.

- For contaminants with tolerances above zero, assessment is made on the half litre sample on grain above and below the 2.00 mm screen after the Unmillable Material assessment has been conducted.

- For nil tolerance contaminants, the tolerance (rejection of the load) may apply if the contaminant is detected at any stage of the delivery or testing process, including in the truckload before sampling, in the probe sample, in the half litre sample or during discharge into the receival hopper after assessment.

- Following sieving, the grain remaining on the top and in the bottom screen should be examined under conditions of good lighting. There is no time restriction for this assessment. If contaminants are found, they shall be removed by hand and assessed in accordance with the tolerance prescribed in these Standards under 5.15.1.

- Seed contaminants are to be assessed using the appropriate visual assessment method and in accordance with the tolerance prescribed in these Standards under 5.18.1. Note that for Type 1 weed seeds, tolerances apply to individual seeds whereas for all other Types listed, tolerances are the total of all seeds in each Type.

- Small Foreign Seeds (SFS) are assessed in the bottom tray (catchpan). These may need to be physically removed from all non-SFS material in the bottom tray. Alternatively, to assist in separating SFS from non-SFS material in the bottom tray, a mesh screen may be used. Place the sample over the mesh screen over a white tray and gentle shake. SFS tend to remain on top of the mesh screen. Physical hand separation of SFS may still be required using this method.

- Note that any seed pods detected must not be opened. Whole pods or part thereof are classified as Unmillable Material Above the Screen unless tolerances are specified in Foreign Seeds.

- Where depicted, other contaminants should be assessed using the GTA Approved photographic standards. Where reference material is not available, other contaminants should be assessed by reference to the Definitions of those parameters.

- For assessment of Pickling Compounds, Chemicals not Approved for Wheat or Chemicals in Excess of the MRL, all deliveries are to be accompanied by a signed declaration referring to its chemical status. Where the receiving agent believes that the visual appearance and/or odour of grain suggests that it has been treated with a non approved chemical, the grain is not to be received until the representative “as received” sample has been tested by an approved independent laboratory and the presence or absence of non approved chemicals ascertained.

- Report results as follows:

  Count per half litre – nearest whole number
  Length in cm per half litre – nearest 0.1cm
  Percentage by wt in half litre – nearest 0.1%
  Percentage by count in 300 grains – nearest 0.1%
  Percentage by count in a half litre – nearest 1%

5.15.6 References

Grain Quality Visual Recognition Standards – Australian Grains Centre, Co-operative Bulk Handling Ltd, October 2004.

Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition Revised, GrainCorp Operations Ltd

Seed Impurities of Grain. An Identification Kit, 3rd Edition, GrainCorp Operations Ltd 1998

Ute Guide Series, GRDC

5.16 Vitreous Kernel Assessment – Reference Method

5.16.1 Definition

This is the reference method for the determination of vitreous kernel percentage in durum wheat presented for delivery. The principle involves visual identification and removal of mottled grains by hand picking from a 300 grain sample. Every grain is carefully examined on all sides before a vitreous kernel assessment is made. Bleached grains are cut with a scalpel or Farinator in order to facilitate their classification. The non vitreous grains are counted and the vitreous grain percentage then calculated.

5.16.2 Scope

This method is applicable to all durum wheat.

5.16.3 Apparatus

Sample divider

Agtator and 2.00mm wheat screen

Seed counter

Sample inspection tray

Tweezers

Farinator

Scalpel

5.16.4 Reagents

Not applicable.

5.16.5 Method

- Sample to be “as is”.
- Screen the sample over a 2.00mm wheat screen using the approved method of determining Unmillable Material for Wheat.
- Count out 300 grains obtained from the top of the screen after completion of the screening process using a grain counter. A 300 grain tray or hand counting can also be used.

- Pour the 300 grain sample into the sample inspection tray.
- With the aid of tweezers (if required), visually examine the grain, turning each grain from side to side so that its entire surface may be observed.
- Separate the grains according to whether they are assessed as vitreous, non vitreous or bleached. Count the non vitreous grains.
- Bleached grains may be difficult to ascertain if they are vitreous or not. These may be cut with a scalpel or Farinator (preferred) then classified as vitreous or non vitreous. Vitreous grains will appear uniformly bright and translucent. Non vitreous grains will be dull and opaque, or will contain dark, opaque sections that are clearly visible within the remaining translucent section of the grain.
- Count the non vitreous grain and add the result to that determined at the previous step above.
- Calculate the sum of the non vitreous grain counts.
- Determine the vitreous grain percentage as follows:

$$\text{Vitreous kernels (\%)} = \frac{300 - \text{non vitreous grain count}}{300} \times 100$$

- Vitreous grain percentages are reported correct to the nearest whole number.

5.16.6 References

Method for the Determination of the Vitreousness of Durum Wheat, International Association for Cereal Chemistry (ICC) ICC Standard No 129 1980

Australian Durum Vitreous Reference Chart, Australian Durum Industry Association

5.17 Vitreous Kernel Assessment in Durum – Digital Imaging Method

5.17.1 Definition

This is the preferred field assessment method for the determination of the percentage of vitreous kernels in durum. The principle involves the use of a suitably calibrated Cervitec digital imaging instrument to scan a preset quantity of individual durum grains, and to express the result as a percentage by count of vitreous kernels relative to the total number of durum grains analysed.

5.17.2 Scope

This method is applicable to all durum.

5.17.3 Apparatus

Cervitec 1642 Digital Imaging Analyser

1000 kernel grain measure

5.17.4 Reagents

Not applicable

5.17.5 Method

- Place the instrument on a clean, level and stable surface.
- Set the instrument to the correct application model for the grain type being analysed (DWAU 009d).
- Perform an Unmillable Material assessment on the sample to be tested as per the appropriate method outlined in this Manual.
- Collect a representative 1,000 kernel sample of durum grains from the top of the 2.00 mm wheat screen after the Unmillable Material assessment has been completed.
- Ensure the grain is free of foreign objects or unmillable material.
- Start the analysis by pressing the appropriate key(s) on the instrument.
- Once the wheel begins to turn, pour the 1,000 kernel sample into the instrument hopper. The instrument will conduct the analysis.
- Once the analysis process is complete, the result will be displayed as % vitreous. Record the result and remove the sample from the collection drawer.

- Report result to the nearest 0.1%.

5.17.6 References

Method for the Determination of the Vitreousness of Durum Wheat, International Association for Cereal Chemistry (ICC) ICC Standard No 129 1980

Cervitec™ 1642 Grain Inspector User Manual 1001 3801 / Rev. 1.0

5.18 Varietal Declaration Procedure

5.18.1 Definitions

This is the recommended procedure for determining the variety of the load presented for delivery.

5.18.2 Scope

This procedure is applicable to all wheat deliveries.

5.18.3 Apparatus

Not applicable.

5.18.4 Reagents

Not applicable.

5.18.5 Method

- For the purposes of the Receival Standards and delivery of grain, classification is dependant on the point of delivery. This means that the highest grade classification available to a variety depends on the region in which it is delivered and the segregation being available at the point of delivery.

- Driver declares the variety(s) in the load tendered for delivery. It is recommended that the grower sign a Declaration Form and provide this to the driver for provision to the Receival Agent. This Declaration Form should at a minimum contain the grower details and the variety(s) of the load.

- If the declared varietal composition or paddock where the grain was grown is different for each unit tendered for delivery, or more than one variety is commingled in each delivery unit, then a separate assessment of each unit must be conducted.

- Note that depending on the varietal declaration and the procedures of the Receival Agent, a sample of the load may be taken and sent to a laboratory for assessment of the variety within the sample. In this instance sample is to be “as is”.

- Report the variety as per the following procedure using the applicable code as defined by the Receival Agent.

Load is Declared as One Variety Only

- Where the load is declared as being of the one variety only, review the applicable maximum grade classification of that variety as per the Varietal Master List.

- Based on the quality results, Grade the load and record the declared variety.

Load is Declared as Multiple Varieties of the Same Grade Classification Status

- Where the load is declared as being of more than the one variety, determine the different varieties contained in the load and for each, review the applicable maximum grade classification as per the Varietal Master List.

- Based on the quality results, Grade the load and record the variety with the greatest percentage in the load.

Load is Declared as Multiple Varieties of Different Grade Classification Status

- Where the load is declared as being of more than the one variety, determine the different varieties contained in the load and for each, review the applicable maximum grade classification as per the Varietal Master List.

- No matter the percentage of each variety in the load, the maximum grade classification of the load can only be as per the lowest Grade classification of the declared varieties.

- Based on the quality results, Grade the load no higher than the lowest Grade classification and record that variety.

5.18.6 References

Varietal Master List

Declaration Form, if applicable

5.19 Screen Slot Size Compliance Procedure

5.19.1 Definition

This is the recommended procedure for determining whether the screen slot size complies with the Standard and relevant legislation.

5.19.2 Scope

This procedure is applicable to all wheat deliveries and screens used for assessment purposes.

5.19.3 Apparatus

Engineers Pin Gauge, 1.99mm and 2.01mm, with a valid Regulation 13 certificate

Checking template (if available)

Calibration Sticker

5.19.4 Reagents

Not applicable.

5.19.5 Method

- Compliance testing shall be undertaken by randomly selecting 74 slots and measuring using the above Gauge.
- Place screen or disc with the smooth surface up so that it sits horizontally.
- Examine the screen for any damage to the slots. If there is any damage affecting the accuracy of the slots or the screen immediately reject the screen.
- Ensure the screen is labelled with the correct slot/hole size, the commodity that is normally tested on the screen (wheat) and the screen identification number.
- For screen accuracy, place relevant checking template (testing 74 slots) centred as much as possible (use the handle as a guide) on top of screen and rotate so that all the holes line up. For discs place the disc on top of relevant checking template, rotate disc until all the holes line up then clamp with bulldog clips.
- Select the appropriate GO/NO GO GAUGE for the screen/disk to be tested i.e., for wheat, the wheat gauge 1.99 - 2.01mm.
- Hold the GO/NO GO GAUGE in the middle.

- Place an end of the GO/NO GO GAUGE on the middle of a slot which lines up with a slot on the template so that is perpendicular to the slot.

- Release the GO/NO GO GAUGE. Gauges are not to be pushed through slots.

    - If the GREEN (GO) end does not go through then the slot fails. Record this event and move on to the next slot.

    - If the GREEN (GO) end does go through then the slot size is greater than the nominated size of the GREEN end. Proceed to test the slot with the RED (NO GO) end as follows:

        - If the RED (NO GO) end does not go through then the slot size is less than the nominated size of the RED end and greater than the nominated size of the Green End, hence the slot is within the accepted range and passes.

        - If the RED (NO GO) end does go through then the slot fails. Record this event and move on to the next slot.

    - Proceed to test all 74 slots, recording each failure.

    - 0 to 25 slots is an acceptable failure rate.

- If the screen meets the tolerances:

    - Record results on the equipment record

    - Affix the relevant calibration sticker to the side of the sieve (not the catch pan)

5.19.6 References

Not applicable.

5.20 Bread Wheat Assessment in Durum – Reference Method

5.20.1 Definitions

This is the reference method for the determination of bread wheat percentage in durum wheat presented for delivery.

5.20.2 Scope

This method is applicable to all durum wheat.

5.20.3 Apparatus

Sample divider

Agtator and 2.00mm wheat screen

Seed counter

Sample inspection tray

Tweezers

Visual Recognition Standards, with the following photographic standards being recognised by GTA:

- Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition, GrainCorp Operations Ltd - Section 3.1

5.20.4 Reagents

Not applicable.

5.20.5 Method

- Sample to be “as is”.
- Screen the sample over a 2.00mm wheat screen using the approved method of determining Unmillable Material of Wheat.
- Count out 300 grains obtained from the top of the screen after completion of the screening process using a grain counter. A 300 grain tray or hand counting can also be used.
- Pour the 300 grain sample into the sample inspection tray.

- With the aid of tweezers (if required), separate the bread wheat grains which can be identified by the presence of fine hairs on the brush end of the grain.

- Count the number of bread wheat grains separated.

- Calculate the percentage of bread wheats:

$$\text{Bread wheat (\%)} = \frac{\text{Bread wheat count}}{300} \times 100$$

- Report results to the nearest percent.

5.20.6 References

Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment – 1st Edition, GrainCorp Operations Ltd - Section 3.1

SECTION 6 REFERENCE MATERIALS

At the time of publishing this Manual, the following photographic Reference Material referred to in this Manual is considered by GTA to be suitable as an aid to classification of wheat.

Industry should be aware that all such material is controlled by the author of that material and appropriate copies of that material can be obtained from the author.

The method of printing, copying, storing, using or otherwise obtaining such Reference Material may impact on the appearance of its content. This may impact on the classification of wheat. Industry should note the method of publication of the material by the author and other relevant information such as version number to ensure they have the appropriate version.

Name of Material	Material Type	Author	Version Number	Applicable Dates
Defective Grains				
Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment	Hardcopy booklet	GrainCorp Operations Ltd	1st Edition Revised, Section 2	n/a
Grain Quality Visual Recognition Standards	Hardcopy single sheets per defect type	Australian Grains Centre, Co-operative Bulk Handling Ltd	October 2004	n/a
Australian Durum Vitreous Reference Chart	Hardcopy single sheet	Australian Durum Industry Association	n/a	n/a
Contaminants				
Grain Quality Winter Grain Crops: The Ute Guide	Hardcopy booklet	GRDC	n/a	n/a
Weeds: The Ute Guide	Hardcopy booklet	GRDC	Various editions	n/a
Insects of Stored Grain	Hardcopy booklet	SGRL, CSIRO		n/a
Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment	Hardcopy booklet	GrainCorp Operations Ltd	1st Edition Revised, Section 4	n/a
Seed Impurities of Grain - An Identification Kit	Hardcopy booklet	GrainCorp Operations Ltd	3rd Edition	n/a