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Member Update

Title: **Proposed GTA Standards 2012/13 Season**

Update No.: **07 of 12**

Date of Issue: **7 May 2012**

Distribution

- GTA Members – primary contact list. Please circulate to all appropriate internal parties

1. Update

Proposed GTA Standards 2012/13 Season

2. Background

Member Update 1 of 12 sought industry feedback on proposed changes to Standards for 2012/13 and potential changes for the following seasons. Feedback was received from industry on the issues outlined in the Member Update and on a range of other Standards issues. Feedback received was both for and against changes and varied in detail provided.

The GTA Standards Committee (Committee) has recently met to consider feedback received from industry.

3. Industry Feedback

This document lists the following deliberations of the Committee:

- Decisions on issues as documented in the first request for industry submissions process being:
  - Agreed changes for adoption in 2012/13;
  - Issues that were previously considered for change in 2012/13 but not accepted for progression by the Committee; and
  - Potential changes for 2012/13 where further industry advice is required
- Issues for future consideration

For clarity, this document lists in order those issues documented in the first industry call for submissions.

In order to finalise the Standards, the Committee is seeking a final round of industry comment on the issues in this document and on any other Standards related issue. Submissions may refer to the initial submission however all relevant material should be provided in the current submission.

Submissions on this second round of the review process should be received by COB Monday 28th May 2012. Please lodge your submissions by sending to admin@graintrade.org.au and title your email – Standards Review 2012/13.

A proforma for lodging submissions is located on the GTA website at http://www.graintrade.org.au/committees

4. Agreed Changes for Adoption in the 2012/13 Season

3.1 Agreed Change: Reference Booklet - Maize

A draft of the Standards Booklet for Maize has been developed by the Committee and is currently being reviewed by the Maize industry. No significant changes from the current standards are proposed at this stage. It is intended for this Booklet to be made available for the 2012/13 harvest. Should anyone seek a copy of the draft in order to provide comments please contact GTA.

3.2 Agreed Change: Visual Recognition Guides – Cereals

The existing Visual Recognition Guides (VRGs) for wheat, barley and sorghum have been changed as follows:

a) Reference to the date when the VRGs become applicable. It is intended that VRGs remain applicable until revised versions are released to industry. An annual review of each will be conducted.
b) Reference made to the applicability of the photographs and definition for each defect. The photographs for each defect in the VRG and the definitions in the standards Booklet both reflect the particular defect and both should be referred to when assessing grain quality.
c) To aid access, all definitions of defects will have a hyperlink to the image or page with the definitions representing it.

VRGs for chickpeas, canola and oats are currently being drafted and are planned to be available for the 2012/13 harvest. The changes outlined under 3.2 a)-c) above will be included in those VRGs and the oilseed and pulse sectors of industry will be asked to consider adoption of those proposed revised definitions.

3.3 Agreed Change: Specific defective grain definitions – Cereals

The following changes to definitions for defects were agreed:

3.3.1 Oats - Field Fungi

Field Fungi affected grains are those grains that have a seed coat that contains a dark discolouration that may or may not be due to a fungal substance. The visible discolouration of affected grains can vary from grey to black in colour. Grains that show staining but no fungal growth are to be classified as Weather Stained Grains. Grains that are soft (that are not classified as Sappy) and/or emit a mouldy odour are to be classified as Musty or Mouldy.

3.3.2 Cereal Rye - Field Fungi

Field Fungi affected grains are those grains that have a seed coat that contains a dark discolouration that may or may not be due to a fungal substance. The visible discolouration of affected grains can vary from grey to black in colour. Grains that show staining but no fungal growth are to be classified as Weather Damaged Grains. Grains that are soft (that are not classified as Sappy) and/or emit a mouldy odour are to be classified as Musty or Mouldy.

3.3.3 Triticale - Field Fungi

Field Fungi affected grains are those grains that have a seed coat that contains a dark discolouration that may or may not be due to a fungal substance. The visible discolouration of affected grains can vary from grey to black in colour. Grains that show staining but no fungal growth are to be classified as Weather Stained Grains. Grains that are soft (that are not classified as Sappy) and/or emit a mouldy odour are to be classified as Musty or Mouldy.

3.3.4 Oats – Damaged Grains

Damaged Grains for Oats refer to grains that have been physically damaged. This commonly includes broken grain and insect damaged grain.

3.3.5 Oats – Groat

Groat refers to the de-hulled grains in Oats. The grains are either partially or wholly de-hulled which is caused by physical damage during the harvesting and handling process.

3.3.6 Oats - Weather Stained Grains

Weather Stained grains are caused by damp weather prior to harvest. Weather stained grains are those grains exhibiting various forms of staining such as dark tipping, poor colour, weather affected etc, above and beyond the normal colour of the variety. Grains that are affected by Field fungi or mould are not included in the definition of Weather damaged grains.

Various colours such as grey, brown to black may be represented by this defect. Where Weather Stained Grains are present in a sample it is recommended the husk be removed and the groat examined to determine if the defect is present.

3.3.7 Oats – Weather Stained Groats

Weather Stained Groats are those that have been stained by damp weather prior to harvest. This defect is usually checked where Weather Stained Grains are present in the sample. Where this staining has occurred the husk is recommended to be removed and the groat examined.

3.4 Agreed Change: Minimum Falling Number for Cereal Rye No.1 Grade

Introduce a minimum Falling Number for the Cereal Rye Grade (GTA No.1 grade only) of a minimum of 200 seconds. There is no limit for visually sprouted grain. Upon detection of visually sprouted grain, a Falling Number test should be conducted. The Falling Number result will over-ride the visual sprouted grain level.

A Falling Number reference method has been included in the Cereal Rye Booklet.

3.5 Agreed Change: Minor Clarifications

A number of minor clarifications were agreed, with these not significantly impacting on the standards being applied or requiring industry feedback. These include:

- Updates in all Standards Booklets to refer to the latest versions of the Visual Recognition Guides, Weed Seed Identification booklet and the document entitled “Australian Grains Industry Post Harvest Chemical Usage Recommendations and Outturn Tolerances 2011/12”.
- Inclusion in the Reference Contaminant Methods for all Booklets a procedure on how to measure the length of ryegrass ergot (i.e., ruler).
- A reference included in the Sorghum Standards Booklet for the calculation of Total Admixture, which was previously not included.

4. Previously Proposed Changes not approved for Progression

4.1 Rejected Change: Minimum Varietal Purity Specifications - Wheat

There is currently a set of guidelines for determining the classification of a load tendered by a grower for delivery that is declared as a “combination of varieties” (see page 90 of the Wheat Standards Booklet at www.graintrade.org.au/commodity_standards).

The Committee rejected the proposal for a minimum varietal purity as there was no market requirement. Each load containing a separate variety is generally commingled into the one grade in storage, thus negating the need for a minimum specification for varietal purity in each load.

5. Potential changes for 2012/13 where further industry advice is required

5.1 Proposed Change: Weed Seed Review – All Cereals

In September 2011 the Committee released to industry a discussion paper outlining a revised weed seed grouping and set of tolerances for all national cereal standards. That paper also proposed the creation of a Foreign Material category where one did not currently exist.

The Committee considered industry feedback and other than the change outlined below, no changes were considered warranted to the initial proposal. Where industry has specific weed seed restrictions due to end-use requirements, as in the past, regional specific tolerances have and are expected to continue to be introduced to meet those sector requirements. The one change to the initial Weed Seed Review paper is as follows:

Branched Broomrape (Orobanche ramosa) status has changed from quarantine status to management status in South Australia. As a result it is proposed that for all cereals Branched Broomrape:

- Season 2012/13 – be removed from Type 2 to Type 3a.
- Season 2013/14 – be removed from Type 2 to Category B.

Attached to this paper is that initial Weed Seed Review paper (without the above change for Branched Broomrape listed). Further submissions from industry are sought on any aspect in the paper, including:

- The proposed new tolerances for Foreign Material
  - For those cereals where a category does not currently exist (e.g., wheat)
  - The revised definition and tolerance where a category currently exists (e.g., barley).
- The revised weed seed categories, reduced in most cereals standards to 5 categories only.
- The impacts of the changes on the assessment process, including the time taken for assessment. In particular, the inclusion of a tolerance and thus requirement for Foreign Material assessment in all standards.
- The revised tolerances for weed seeds and the impact on end-use in the lower quality grades for each cereal commodity.
- The impact of the changes on all existing weed seed legislation covering production, movement and trading of cereals in each State and Territory.
- Any other matter related to the weed seed review.

2012/13 Trial

It is intended to trial the revised weed seed tolerances in 2012/13 prior to implementation in 2013/14. Industry participation in this trial is vital to ensure the proposed changes meet the intention of simplifying the assessment process, while still maintaining the quality of grain traded domestically and internationally. At a minimum the trial should include the following sectors:

- Wheat flour milling industry
- Malting industry
- Oat processing industry
- Human consumption sector for other cereals e.g., cereal rye, maize
- Stockfeed sector for all cereals, including the whole grain and processing sector

Industry is encouraged to nominate for participation in the trial over the ensuing 2012/13 harvest. If industry prefers, given time restraints over harvest the trial may be conducted during 2012, prior to the 2012/13 harvest commencing.

A separate page outlining how to conduct the trial and a pro-forma for recording the results will be provided to those industry participants proposing to participate in the trial. Guidance will be provided as required.

Please advise GTA on admin@graintrade.org.au if you intend to participate in the trial and assist industry in this major endeavour.

Implementation of Weed Seed Review Outcomes

Following a review of the 2012/13 harvest trial results, the Committee will recommend any further changes as required. If no significant amendments are required, all of the recommendations outlined in the attached paper including the revised categories and tolerances will be adopted in the 2013/14 standards for all cereal grades.

6. Issues for future Consideration beyond 2012/13

6.1 Proposed Action: Malt Barley Germination Assessment

In the first round of submissions industry was advised the Committee was considering the implications of various quality parameters listed in the Malt standards related to germination (shot, sprouted, germinative energy, germinative capacity, Falling Number, RVA), and the impact of these on the trade of malt barley.

The Committee has determined that:

- The method of storage of malt barley has an impact on quality on outturn.
- At receival a low Falling Number (FN) or Rapid Visco Analyser (RVA) doesn't equal low germination and conversely a high FN/RVA does not equal high germination.
- A low FN/RVA at receival generally indicates pre-harvest sprouting.
- Pre-harvest sprouting causes issues with the longevity of barley germination levels in storage.
- FN/RVA was introduced into the standards at the request of growers seeking an objective adjunct to visual assessment of shot grain. Generally no FN/RVA testing at receival occurs unless shot or sprouted grain is seen in the representative sample. The nil tolerance for shot grain (pre-harvest sprouting) remains in the standard, unless an over-riding FN/RVA test is performed.
- Export or domestic barley contracts may stipulate a minimum FN of 300 seconds or RVA 130 regardless of any other quality parameter.
- Some industry members are estimating germination using Tetrazolium on outturn/receival post-harvest as it may be a predictor of germination levels and can be performed rapidly. The 72 hour germinative energy test remains the reference method in cases of disputed germination results.
- Sufficient data is not available to support any potential change that may be required to Standards for this season.
- Data that may/may not support a potential change for next season is currently being generated.

Until that data is available, industry should note:

6.1.1 All receival parameters relating to this topic remain as they are in the Standards.

6.1.2 Industry may conduct whichever tests they consider warranted to determine the quality of the grain and end-use suitability.

6.1.3 At the point of receival during harvest, it is recommended that grower loads are inspected for sprouted/shot grains. If sprouted/shot grains are present, it is recommended that a Falling Number/RVA test is conducted.

6.1.4 Industry should monitor the germination of all malt barley stacks during the storage period.

6.1.5 Prior to outturn, if there is any doubt on the germination and/or FN/RVA results of grain in storage not meeting the standard, liaise with all parties involved.

6.1.6 For post-harvest deliveries of barley from a grower into storage, it is recommended that a germination test be conducted prior to grain receival.

6.2 Proposed Action: Development of Code of Practice

There was widespread support for the development of this Code. In response the GTA Board has developed a draft Code of Practice relating to Standards and quality related issues at all stages along the grain supply chain.

The Code will shortly be provided to industry for comment prior to production.

6.3 Proposed Action: Actioning of Research Items – All Cereals

Industry supported the Committee providing industry with assistance in interpretation and implementation of Standards. This included actioning research related to the Standards.

In response the Committee has commenced a range of activities related to the following research items:

No.	Issue	Comment / Action
1	Earth & Sand Assessment	Will be reviewed, however low priority
2	Reference Screen Specifications	Existing screens in use by industry being documented. A research plan to develop specifications is being developed
3	Reference Booklets all Cereals	Remaining booklet for maize in draft
4	Weed Seed Categories Review	Commenced – see point 5.1
5	Pyrrolizidine Alkaloids	Funding of a Food Safety sub-committee being considered by GTA Board
6	Foreign Material for all Standards	Commenced under weed seed review – see point 5.1
7	Foreign Material, Unmillable Material and Contaminants category simplification	Commenced under weed seed review – see point 5.1
8	Consistency of Standards across Industry	Is being considered under the Code of Practice – see point 6.2
9	Image Analysis techniques and adoption by industry	A GTA Visual Recognition Guide sub-committee has been formed – see point 3.2
10	Sample probe use in pulses (vacuum v manual)	Is being considered under the Code of Practice – see point 6.2
11	Generation of Fact Sheets and data to support existing quality parameters and tolerances in standards	Is being considered as part of development of Code of Practice – see point 6.2
12	Generation and Adoption of National Reference material : Visual Quality Charts	A GTA Visual Recognition Guide sub-committee has developed a timeline for development – see point 3.2
13	NIR protein and moisture calibration – impact of weather damage	Commenced – A grain industry working group meets regularly with the National Measurement Institute
14	FN Machine vibration impacts	Concluded – no further action required

6.4 Proposed Change: Test Weight – Wheat

As initially advised in 2010 and updated annually, the implementation date of the GTA Board Policy for an increase in test weight in milling grades of wheat is no later than 2013/2014.

In 2012 the Committee will continue to action the following remaining issues that are associated with this decision on test weight as outlined briefly below:

- Test weight will be reviewed annually with the intention to implement the 76 kg/hl test weight in milling grades at an earlier date if justified – An earlier date is not proposed.
- Individual Grades be reviewed with a view to increasing Test Weight in the most appropriate grades first rather than a blanket all milling grades – Not proposed at this time.
- Plant breeders (including AGT, Intergrain and Longreach) are contacted to determine realistic timelines for the availability of varieties with a propensity for higher Test Weight to determine the potential for existing and new varieties to meet this requirement. This discussion and analysis would involve interactions with the WCC and the National Variety Trials. NVT data would need to be analysed upon receipt – Wheat Quality Australia have been contacted and the Committee has received advice that test weight considerations "for new varieties during the varietal classification process" do not require to be modified.
- An annual review of this decision is conducted to analyse all relevant data re: availability of varieties, current crop quality, market opportunities / requirements – Data on receivals during the 2011/12 harvest has been evaluated and as a consequence of a significant tonnage potentially downgraded due to the proposed change, a number of industry have advised they no longer support the proposed change.
- GTA produce a paper for distribution across Industry to outline the outcomes from the GTA Board decision with regard to changes in Test Weight limits – The paper will be produced in 2013 prior to implementation of the decision for the 2013/14 harvest.

Industry is invited to provide any additional comments and supporting evidence regarding the proposed adoption of the change in test weight planned for 2013/14.

6.5 Potential Change: Nil Tolerance Definition

Industry has sought a review of the definition and application of "Nil tolerance" in the standards, particularly relating to the outturn of grain where receival standards are applied. The application of Nil means that a truckload or train from any country storage facility may be rejected at the domestic end-user or at the export terminal for a low level (i.e., 1 grain) of common defects such as bin burnt, heat damaged or mouldy grains.

The potential exists for Nil to be defined "at a low level", providing the definition has no significant impact on the marketability of the grain and does not cause a food safety issue.

An issues paper will be provided to industry for comment in early 2013 outlining potential changes and seeking industry input and comment.

6.6 Potential Change: Definition of various defects

Industry was advised in 2011/12 that a review of various defects would occur in an attempt to simplify the classification and assessment process and ensure common terminology and tolerances were applied across commodities where feasible.

Under 3.3 above, several changes have been made for the 2012/13 standards.

In developing the 2013/14 standards, a more significant review of definitions and tolerances will occur, done in conjunction with the review of the definition of Nil tolerance as described in 6.5 above.

This review will include reference to the defects and contaminants detailed in international standards as well as an economic evaluation of defects and contaminants as they currently stand. Where feasible, the Committee will make minor changes to the definitions and visual images for 2012/13 to improve clarity.

In making changes, the following guidelines will apply:

6.6.1 Removal of the percentages and measurements from the standards definitions, but include as an extra source of information in the visual recognition guide.
6.6.2 Use the same terminology across all commodities to ensure consistency.
6.6.3 Where a defect may manifest itself on both sides of the grain, two photos will be required to display the grain in full.
6.6.4 Consistency in the types of definitions names, i.e. Shot/Sprouted, Dark Tip/Black Point in all commodities to ensure that the description of the defect means the same regardless of the commodity.
6.6.5 Avoid a colour gradient (i.e. Light brown to dark brown, black) and potentially refer the definition to the photograph in the VRG or make the colour restriction clearer.

Weed Seed Review 2011/12 Industry Consultation Paper

Background

Industry was advised during the development of the 2010/11 Standards that the GTA Standards Committee (the Committee) were reviewing the weed seed categories and tolerances with a view to their simplification. Industry submissions on those and subsequent Standards generally agreed with the review and sought input into the changes following further development of the changes by the Committee.

1. Principles for the weed seed review

The current Standards include a range of weed seed categories, in some Standards up to 15 direct weed seed categories and 3 associated categories. Different commodities have variations to the categories, the weed seeds listed in each category and tolerances that apply. This makes the classification process, including understanding of the Standards and correct implementation of the classification process difficult.

A number of separate tolerances and test methods exist for quality parameters closely associated with weed seeds (such as Foreign Material, weed seed pods, unmillable material). Additionally, a range of activities must be done to assess each of these different quality parameters.

The Committee has considered a range of topics and the intention of the review is to develop revised Standards in relation to weed seeds and associated contaminants. The proposed changes have been identified in general (unless otherwise identified) as complying with the following key principles:

1.1 Simplification when implementing

- Desire for the testing process to be readily understood by all approved samplers
- Samplers easily trained in new Standards and testing process

1.2 Fits into existing testing processes

- Testing process must be as rapid as possible without compromising the integrity of the process
- Desire for existing testing processes to be used, rather than implement a new process

1.3 Weight where possible versus count

- To aid the speed of assessment of various quality parameters, many processes are now undertaken on a weight basis rather than a count
- A mix of methods is proposed, with assessment for the new categories A-E to be done by count and Foreign Material by weight

1.4 One single process to assess

- In many Standards, weed seeds are listed in several sections such as Unmillable Material, various weed seed categories, Foreign Material
- This requires in some instances different assessment methods, prolonging the classification process
- The new categories simplify the assessment into one process, recognising that both above and below the screen will need to be inspected as per the current process
- The Committee believes the new categories and process will in the majority of cases, shorten the time for assessment

1.5 Reference to weed seeds in one area of the standards

- In many Standards, weed seeds are listed in several sections such as Unmillable Material, various weed seed categories, Foreign Material
- This requires additional effort to understand the tolerances and methods to be applied, creating unnecessary delays in the assessment process and risks of incorrect application of the Standards

1.6 Complies with all relevant legislation

- Various State and Federal legislation exists in relation to noxious weed seeds, weed seeds movements and tolerances in commodities such as Stockfeed
- Any revised Standards must consider that legislation, noting that it may not be relevant for commodity standards to impose tolerances on weed seeds that are restricted in particular State or Federal legislation
- The Committee intends to write to all State Departments that have existing legislation seeking their views on the proposed changes and impacts on their legislation

1.7 All weed seeds and tolerances must be defendable

- Weed seeds must only be listed if they have a direct market impact
- Where possible weed seeds should not be listed as previously occurred in order to promote good crop management and weed seed control
- Tolerances must be set that are able to be readily complied with by the production sector, are able to be managed in the supply chain and reflect market requirements
- Given the conflict that may sometimes exist between those three sectors, individual weed seeds may be listed and tolerances set may be a "compromise" that meets the overall objective of the grain industry of 'facilitating trade'

1.8 Consistency across all commodities

- While this paper is focussed on cereals, consistency in standards and test methods across all commodities is desirable to assist training of samplers, understanding of Standards and to simplify the testing and classification process
- It is recognised that variations may exist reflecting factors such as the end-use of the commodity, however any variations must be defendable and where possible minimised

1.9 Visual categorisation

- While some weed seeds may be difficult to assess at the species level, the desire is for all weed seeds with a specific tolerance listed to be readily identified visually, with minimal additional training other than already occurs
- The desire is that all other weed weeds not listed would be included in an "all encompassing" category, not requiring identification to the species level

1.10 Existing tolerances are not significantly altered

- Existing tolerances for individual weed seeds have generally been in place for many years, enabling the successful marketing of a range of commodities
- Unless there are compelling reasons, under any new system, the desire is to maintain tolerances as close as practically possible to existing ones
- The review also provides an opportunity to justify the existing tolerances and update those based on modern farming practices, increased marketing competition and a range of other factors
- Specific weed seeds listed in the new categories now include only those that are unsightly in a sample, impart a taint, have a feed intake impact, are considered allergens, have a potentially toxic effect if consumed or have quarantine restrictions
- The Committee has considered previous tolerances and under the proposed changes, some tolerances have increased and others decreased. These changes are highlighted and industry comment is sought specifically on those and other issues outlined in this document

2. Other Considerations

A number of other factors have been considered when conducting this review:

2.1 Weight Assessment

- While there is a desire for weight assessment in order to speed the classification process, this is not always practical
- In considering whether to implement assessment of weed seeds by weight, the Committee considered a range of factors including but not limited to
    - The practicality of identifying individual weed seeds in a sample
    - The practicality and method (tweezers etc) of picking up and removing individual weed seeds from a sample
    - The time taken to place the various weed seeds in "a bowl for weighing on the balance" and the additional time that may be required for this over counting the weed seeds
    - The availability of suitably accurate balances and practicality of their location in a sample stand

2.2 Seed Pods

- Weed seed pods, including any seeds they contain are currently defined and assessed in a number of different ways in various commodities. For example
    - Pieces of pods included in Unmillable Material above the Screen or Foreign Material
    - Tolerances for weed seeds or their pods are the same
    - Some pods are broken open and seeds counted ,whereas others are not
- If weed seeds are not removed from pods at receival, the potential exists for pods to break during storage and handling and for levels of individual weed seeds to violate the tolerance on outturn
- Any revised process must meet with the principles outlined in point 1 above and not add significantly to the assessment time or increase the difficulty of assessment
- In considering the future assessment of weed seeds in pods and pieces of pods, the Committee has proposed that
    - Weed seed pods be handled as per the weed seeds they may contain. Therefore pods should be broken and weed seeds counted. This will result in weed seeds listed in the one area of the Standards and not be listed in several areas as previously described
    - Pieces of weed seed pods in a commodity are not encouraged or wanted by the marketplace. Weed seed pods therefore logically fall under the definition of Foreign Material
    - The exception is Peanut pods, which will remain as a NIL tolerance (Category A) due to potential allergenic effects

2.3 Foreign Material

- Foreign Material is generally defined as " all material other than whole or broken kernels of the commodity in question being assessed"
- While some commodities list a definition and tolerance, others do not. The Committee noted that many export contracts have a Foreign Material category and tolerance that generally reflects what is proposed in this paper
- Different definitions apply for various commodities, complicating the assessment process when changing from one delivered commodity to another
- To simplify the assessment process for weed seeds and associated categories, the Committee recommends that a Foreign Material category be developed for all Standards in accordance with the following principles:
    - The definition be consistent
    - As much material as possible will be included in this definition, thereby reducing the number of "other categories" to be individually assessed
    - Where an existing definition exists, this be reviewed to ensure consistency
    - Where a tolerance exists, this be reviewed to ensure it is appropriate for the revised definition
    - As per most Standards, the tolerance to apply will be the same within a Standard for bulk, container or the bag trade on receival or outturn. The Committee considers the potential for "Foreign Material accumulation in a storage" and the implications of loading this material on outturn into a container or individual truckload as a commercial matter

2.4 Soil

- Soil may be associated with deliveries of some commodities and in coastal areas where sand may be prevalent
- Any revised assessment process for weed seeds must not compromise the assessment for soil, as there is a nil tolerance in exported product for soil
- The Committee does not consider that the recommendations outlined in this paper impact on the assessment of soil in a sample

2.5 Data Collection at Receival

- Some receival agents stipulate mandatory analysis and recording of various quality parameters in a sample. This also applies to some of the existing weed seed or associated categories
- The Committee considers that the proposed changes do not impact on this requirement, as industry will choose to record data where it is considered an operational or marketing requirement
- The proposed changes may enhance the collection and transfer of data on the quality of the crop, assisting the marketing effort. For example, recording of Foreign Material will assist exporters when contracts stipulate a tolerance
- Comment from industry is sought on the requirement for data collection and the impact of this on the receival process

2.6 End-user Sector and Regional Variations

- In existing Standards variations exist to cater for regional weed seeds of significance and based on specific commodity end-user sector requirements
- Where possible the Committee encourages consistency in Standards across the country but recognises the need for variations arising from commercial issues
- Industry is encouraged to provide supporting data where any regional or end-user variations are sought on the proposals in this document

2.7 Other Contaminants

- In many commodity Standards a range of categories and tolerances exist for other contaminants
- These separate categories generally have low tolerances
- The proposal is for all contaminants to be included in Foreign Material
- In 2012/13, the Committee will review those categories and tolerances in light of industry feedback and the outcomes of the 2011/12 season trial with a view to simplification of the Standards where possible via deletion of these individual categories
- Industry comment on those proposed changes will be sought during development of the 2012/13 Standards

3. Proposed Changes

3.1 Weed Seed Categories

The following weed seed categories are to be applied across all cereal commodities.

Table 1: Revised Weed Seed Categories

Category/Reason	Current categories to be included*	Proposed Tolerance Max (seeds per half litre)
A. Nil	Type 2	Nil
B. High toxicity / Quarantine	Type 3a, 3b, 3c, 6 (Except Saffron Thistle), Parthenium weed	5
C. Medium toxicity / Quarantine	Type 1, 5 (Except Patterson's Curse), 6 (Saffron Thistle only)	10
D. Low toxicity / Quarantine	Type 4, Patterson's Curse, Black/Wild Oats	30
E. Visual / Unsightly	Type 7a	Low for milling#
		Higher for off-grades#

* Variations may currently exist in some Standards. Refer to Appendix A for a list of specific weed seeds in each category and Appendix B for the reason for weed seed categorisation and a more detailed description of each category

Refer to the summary table 2 below and Appendix C-I for specific categories and tolerances by commodity

3.2 Foreign Material

Development of a Foreign Material category that will include the old categories (where applicable) of:

- Small foreign seeds
- Type 7b
- Unmillable material above the screen
- All other contaminants (individual tolerances where stipulated remain)

Table 2: Foreign Material tolerances

Commodity	Grade	Foreign Material Max % by weight
Wheat	Milling	1%
	Off-Grades plus SFW1	2%
	Fed 1	5%
Barley	Malt 1	1%
	Malt 2	2%
	Malt 3	2%
	Feed 1	2%
	Feed 2	5%
Oats	Milling	1%
	Feed	5%
Triticale		2%
Rye		2%
Sorghum	No.1, No. 1a	2%
	No. 2, No. 3	5%
Maize	Gritting	1%
	Prime	3%
	Feed	5%

4. Specific Commodity changes requiring consideration

In conducting this review, the Committee specifically identified the following items that require further consideration and the committee invites industry comment.

4.1 Type A-E – all commodities

- Prior tolerances applied to individual seeds in Type 1 only, with a tolerance for the total of all seeds in each category for all other Types
- The proposal is for the tolerance to apply to individual seeds across all categories

4.2 Type 7a – all commodities

- Prior tolerances for lower grades have been reduced

4.3 Type 7b – all commodities

- As noted, the previously categories of 7b, Small Foreign Seeds and Unmillable Material Above the Screen (where applicable) now fall into the one category of Foreign Material
- There is a potential increased tolerance when specific individual weed seeds are the major contaminant in the new category Foreign Material (previously in 7b for most commodities)

4.4 Small Foreign Seeds – all commodities

- Currently SFS are in most Standards, generally being 0.6% in the main grades. Unless levels of these weed seeds are considered excessive, these weeds are rarely removed from a sample and the level in a sample subsequently determined
- The current method to remove SFS from a sample involves significant time and is a somewhat tedious process
- Under the proposal to include all SFS in the one category of Foreign Material, as with the existing tolerances, it is not expected that these weed seeds will be removed unless all material in this new category approaches the tolerance level indicated in the Standards
- A separate list of weed seeds included in this category will not be required, nor will assessment of seeds falling below the screen and into the SFS category be required as a separate process

4.5 Unmillable Material Above the Screen

- In some Standards, this category or a similar category exists, while in others material defined in this category is included elsewhere
- The definition for this category varies by commodity, making assessment of each commodity difficult
- In commodities such as wheat, some weed seeds are also included in this category
- It is proposed that the existing category be removed, however the requirement to "remove seeds within chaff" remain. This test and "seed removal" is generally not done unless levels are approaching the applicable tolerances. This is not expected to alter under the proposed scenario
- Seed pods (weed seeds removed) are now to be defined as Foreign Material, reflecting that they are "not the commodity being assessed". It is therefore logical that seed pods fall under the Foreign Material definition

4.6 Foreign Material – all commodities

- Higher contamination levels have been created for the off-grades relative to the milling/main grades
- Unless identified as a "mandatory" test, it is not expected that this test will be routinely conducted on the main milling grades
- Recognising this test may not be done unless the tolerance might be "approached" the Committee seeks industry comment on the potential for this test to prolong the existing assessment process, especially in the off-grades
- Comment is also sought on the expected frequency where this test may need to be conducted due to high contamination levels

4.7 Barley – Appendix D

- Foreign Material now includes all non-barley seed material and is a tightening from the previous tolerance
- The prior "Foreign Grain, Variations and Other Foreign Material" categories have been removed as separate categories and included in a total Foreign Material
- With the inclusion of all material including "variations" and 7b in Foreign Material, this may be a significant tightening from previous tolerances where high levels of contaminants are detected, impacting on grain being classified not as Malt 1 but downgraded to Malt 2, Malt 3, Feed1 or Feed2
- Barley with Blue Aleurone Layer is now included in Foreign Material with a nil tolerance for Malt grades but no separate category in Feed 1 and Feed 2

4.8 Oats – Appendix E

- A Foreign Material tolerance has been created
- Unmillable Material is now removed as a separate quality parameter and included in Foreign Material
- For Feed, Foreign Material now includes all material other than oat seeds. The previous separate categories of 7b, 8 and SFS are deleted
- Category C is a tightening from the previous tolerance

4.9 Triticale – Appendix F

- A Foreign Material tolerance has been created
- Unmillable Material is now removed as a separate quality parameter and included in Foreign Material
- Foreign Material now includes all material other than triticale seeds. The previous separate categories of Unmillable Material above the Screen, 7b and SFS are deleted. Comment is sought on the appropriateness of the 2% tolerance

4.10 Cereal Rye – Appendix G

- A Foreign Material tolerance has been created
- Unmillable Material is now removed as a separate quality parameter and included in Foreign Material
- Foreign Material now includes all material other than cereal rye seeds. The previous separate categories of Unmillable Material above the Screen, 7b and SFS are deleted. Comment is sought on the appropriateness of the 2% tolerance

4.11 Sorghum – Appendix H

- The previous Foreign Material definition has been altered to include all material other than sorghum seeds
- Trash is now removed as a separate quality parameter and included in Foreign Material
- The revised Foreign Material tolerances in general reflect export contracts for this parameter, which is significantly tighter than the previous tolerance applicable to all material included in this category for export
- Total Admixture would not be required as separate tolerances would exist for Foreign Material and Screenings
- Comment is sought on the appropriateness of the revised Foreign Material tolerance for all grades
- Category E tolerances for all grades have been altered
- Comment is sought on the need (and if so, what tolerances should apply) for revised tolerances for Category E and Foreign Material for each grade
- As highlighted in the table in Appendix H, tolerances have been tightened for Johnson grass and Columbus grass

4.12 Maize – Appendix I

- The previous Foreign Material definition has not been altered as it is consistent with the proposed changes for all other cereals
- Trash is now removed as a separate quality parameter and included in Foreign Material
- Total Admixture would not be required as separate tolerances would exist for Foreign Material and Screenings
- Comment is sought on the appropriateness of the revised Foreign Material tolerance for all grades
- Category A-E tolerances for gritting maize have been included rather than the previous “not applicable”
- Comment is sought on revised tolerances for Category E and Foreign Material for each grade

5. Summary

The changes proposed are considered to simplify the testing process without significantly altering the tolerances for weed seeds in general, and therefore is unlikely to compromise the quality of grain or Australia’s international competitiveness.

Many of the existing weed seed or related tests are not conducted unless in the view of the sampler (based on experience and training) the levels are approaching the tolerances. This is not expected to alter under the proposed changes.

That said, it is recognised there are some significant changes to individual weed seeds and commodities as outlined in this paper that require further consideration. However the intent of these changes is to provide consistency in definitions, testing processes and tolerances across commodities.

Trials during 2011/12 and 2012/13 will validate the assumptions made in this paper and assist in identifying any testing and marketing issues that may arise from the proposed changes.

This paper outlines a significant change to the contaminants area of Australian grain Standards, and the Committee believes the changes are for the benefit of industry in the longer term. Industry is encouraged to provide feedback on the above and any other related issue.

Appendix A

Current and Proposed Weed Seed Categories

The following table lists the current weed seeds named in each category and the proposed new category. These categories are intended to apply across all cereal commodities. Note that variations may exist by commodity and further details on variations and commodities are outlined in the following Appendices.

Table 3: Current and future weed seed categories

Existing Standards		Proposed New Standards	
Current Category	**Current Definition**	**Proposed Category**	**Proposed Definition**
Unmillable Material Above the Screen Max (% by weight)	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	Foreign Material	See Foreign Material below
Foreign Seed Contaminants Max - (count of seeds in total per half litre)			
Type 2	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic/ Wild Garlic, Darling Pea, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, **Opium Poppy** , Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort
Type 3a	Bathurst Burr, **Bellvine**, Bulls Head/Caltrop/Cats Head, Cape Tulip, Cottonseed, Dodder, Noogoora Burr, Thornapple	B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, **Parthenium weed**, Thornapple, Vetch (Commercial), Vetch (Tare)
Type 3b	Vetch (Tare), Vetch (Commercial)		
Type 3c	Heliotrope (Blue), Heliotrope (Common)		
Type 6	Colombus Grass, Johnson Grass, **Saffron Thistle**		
Type 1 (individual seeds)	**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**	C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, **Saffron Thistle**
Type 5	Knapweed (Creeping/Russian), **Sesbania Pea**, **Patterson's Curse/ Salvation Jane**		
Type 4	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**	D	Bindweed (Field), **Black/Wild Oats,** Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, **Patterson's Curse/ Salvation Jane**
Type 7a	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower **and any other seeds or pods greater than 5mm in diameter**	E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower
Type 7b	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	Foreign Material	Includes all material other than seed material of the commodity being assessed. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, all weed seed pods and all other contaminants listed in the Standards
Small Foreign Seeds (% by weight)	All Foreign Seeds not specified in Types 1-7(b) that fall below the 2.0mm screen during the Screenings process		

Note: **bold and underlined** removed from previous existing weed seed type and proposal is to be placed in a different specific category (A-E) or Foreign Material

Appendix B

Categorisation of each Weed Seed

The following table 4 lists the reason individual weed seeds are placed in each category. Weed seeds have been added or deleted from their previous category based on those designations. Industry comment on the categorisation of individual weed seeds is sought.

Brief Explanation of Categories:

The following is a general explanation of the separate categories. Note that a particular weed seed in Table 4 may be listed for more than one reason in a category. There may also be varying levels of impacts within a category of each weed seed. Industry should note that as seeds are generally the main contaminant in commodity samples, categories have been created based on the seed, not other parts of the plant.

Quarantine
- Restricted by Quarantine regulations either domestically or by international markets

Toxicity / Allergen
- May pose a food safety issue when ingested for human and/or animal consumption

Taint
- May taint the end-product

Feed Impact
- May reduce feed intake for animals or impact on animal feeding

Unsightly
- Affects the visual appearance of the grain, reducing its marketability

Agronomic
- May be a competitor of commercial crops if not readily controlled
- Included in this definition may be specific weed seeds that are legislated in individual Australian States and/or Territories legislation

Table 4: Weed seed categories and reasons for their inclusion/deletion

Proposed Category	Weed Seed	Reason for Inclusion in Category
A – Nil	Branched Broomrape	Quarantine
	Castor Oil Plant	Toxicity
	Coriander	Taint
	Crow Garlic / Wild Garlic	Taint
	Darling Pea	Toxicity
	Peanut seeds and pods	Allergen
	Poppy (Opium)	Quarantine, Taint
	Ragweed	Allergen
	Rattlepods	Toxicity
	Starburr	Feed Impact
	St. John's Wort	Toxicity
B – High Toxicity / Quarantine	Bathurst Burr	Feed Impact
	Bellvine	Propose to move to FM - agronomic
	Bulls Head / Caltrop / Cats Head	Feed Impact
	Cape Tulip	Toxicity
	Colombus Grass	Quarantine
	Cottonseed	Quarantine, Taint to milling
	Dodder	Quarantine
	Heliotrope (Blue)	Toxicity
	Heliotrope (Common)	Toxicity
	Johnson Grass	Quarantine
	Noogoora Burr	Feed Impact

Proposed Category	Weed Seed	Reason for Inclusion in Category
	Parthenium weed	Quarantine
	Thornapple	Toxicity
	Vetch (Tare)	Toxicity
	Vetch (Commercial)	Toxicity
C – Medium Toxicity / Quarantine	**Colocynth**	Propose to move to FM - agronomic
	Double Gees / Spiny Emex / Three Cornered Jack	Feed Impact
	Jute	Toxicity
	Knapweed (Creeping/Russian)	Taint
	New Zealand Spinach	Propose to move to FM - agronomic
	Poppy (Field)	Propose to move to FM - agronomic
	Poppy (Horned)	Propose to move to FM - agronomic
	Poppy (Long Head)	Propose to move to FM - agronomic
	Poppy (Mexican)	Toxicity
	Poppy (Wild)	Propose to move to FM - agronomic
	Saffron Thistle	Quarantine - Tasmania
	Sesbania Pea	Propose to move to FM - agronomic
D – Low Toxicity / Quarantine	Bindweed (Field)	Toxicity
	Black/Wild Oats	Unsightly
	Cutleaf Mignonette	Propose to move to FM - agronomic
	Darnel (Drake Seed)	Taint
	Hexham Scent/Meliot	Taint
	Hoary Cress	Propose to move to FM - agronomic
	Mintweed	Toxicity
	Nightshades	Toxicity
	Paddy Melon	Toxicity
	Patterson's Curse / Salvation Jane	Toxicity
	Skeleton Weed	Propose to move to FM - agronomic
	Variegated Thistle	Propose to move to FM - agronomic
E – Visual / Unsightly	Broad Beans	Unsightly
	Chickpeas	Unsightly
	Corn (Maize)	Unsightly
	Cowpea	Unsightly
	Faba Beans	Unsightly
	Lentils	Unsightly
	Lupins	Unsightly
	Peas (Field)	Unsightly
	Safflower	Unsightly
	Soybean	Unsightly
	Sunflower	Unsightly
Foreign Material	Includes all material other than seed material of the commodity being assessed. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, all weed seed pods and all other contaminants listed in the Standards	n/a

Note: **bold and underlined** removed from previous existing weed seed type and proposal is to be placed in a different specific category (A-E) or Foreign Material

Appendix C

Current and Proposed Weed Seed Categories - Wheat

The following table lists the proposed new categories for wheat.

Table 5: Current and future weed seed categories – wheat

Proposed Category #	Proposed Definition	Grade		
		Milling Grade*	AUH2, AGP1, AUW1, HPS1, DR3, SFW1	Fed1
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil		
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10		
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30		
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1	10	20
Foreign Material^	Includes all material other than whole or broken wheat kernels. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Unmillable Material above the Screen, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	1.0%	2.0%	5.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

* Milling includes APH1, APH2, H1, H2, APW1, APW2, ASW1, ANW1, ANW2, PNC, PNE, PWT, ASWS, APWN, DR1, DR2, SFE1 (NSW/VIC), SFE1 (SA), SFT1, SFE2 (NSW/VIC), SFE2 (SA), SFT2

Appendix D

Current and Proposed Weed Seed Categories - Barley

The following table lists the proposed new categories for barley.

Table 6: Current and future weed seed categories – barley

Proposed Category #	Proposed Definition	Grade				
		Malt1	Malt2	Malt3	Feed1	Feed2
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil				
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5				
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10				
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30				
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1	1	1	10	20
Foreign Material^	Includes all material other than whole or broken barley kernels. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards Of which Blue Aleurone Layer --- (For clarity, includes previous categories of all Foreign Seed Contaminants categories including SFS, Foreign Material and all Other Contaminants)	1.0% Nil	2.0% Nil	2.0% Nil	2.0% Included as part of Foreign Material	5.0% Included as part of Foreign Material

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix E

Current and Proposed Weed Seed Categories - Oats

The following table lists the proposed new categories for oats.

Table 7: Current and future weed seed categories – oats

Proposed Category #	Proposed Definition	Grade		
		Prime	Milling No.1	Feed
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil		
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10		
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30		
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1	1	20
Foreign Material^	Includes all material other than whole or broken oat kernels. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Unmillable Material above the Screen, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	1.0%	1.0%	5.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix F

Current and Proposed Weed Seed Categories – Triticale

The following table lists the proposed new categories for Triticale.

Table 8: Current and future weed seed categories – triticale

Proposed Category #	Proposed Definition	Grade
		Triticale
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1
Foreign Material^	Includes all material other than whole or broken triticale kernels. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Unmillable Material above the Screen, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	2.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix G

Current and Proposed Weed Seed Categories – Cereal Rye

The following table lists the proposed new categories for Cereal Rye.

Table 9: Current and future weed seed categories – cereal rye

Proposed Category #	Proposed Definition	Grade
		Cereal Rye
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1
Foreign Material^	Includes all material other than whole or broken cereal rye kernels. Includes whiteheads (with grains removed), chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Unmillable Material above the Screen, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	2.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix H

Current and Proposed Weed Seed Categories – Sorghum

The following table lists the proposed new categories for Sorghum.

Table 10: Current and future weed seed categories – sorghum

Proposed Category #	Proposed Definition	Grade	
		No.1, No. 1a	No. 2, No.3
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil	
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5	
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10	
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30	
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	20	50
Foreign Material^	Includes all material other than whole or broken sorghum kernels. Includes chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Trash, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	2.0%	5.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix I

Current and Proposed Weed Seed Categories – Maize

The following table lists the proposed new categories for Maize.

Table 11: Current and future weed seed categories – maize

Proposed Category #	Proposed Definition	Grade		
		Gritting	Prime	Feed
A	Branched Broomrape, Castor Oil Plant, Coriander, Crow Garlic / Wild Garlic, Darling Pea, Opium Poppy, Peanut seeds and pods, Ragweed, Rattlepods, Starburr, St. John's Wort	Nil		
B	Bathurst Burr, Bulls Head/Caltrop/Cats Head, Cape Tulip, Colombus Grass, Cottonseed, Dodder, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	Double Gees/Spiny Emex/Three Cornered Jack, Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10		
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	30		
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower	1	20	20
Foreign Material^	Includes all material other than whole or broken maize kernels. Includes chaff, backbone, all weed seeds, weed seed pods and all other contaminants listed in the Standards --- (For clarity, includes previous categories of Trash, all Foreign Seed Contaminants categories including SFS and all Other Contaminants)	1.0%	3.0%	5.0%

Within each category the tolerance is the maximum number by count for each seed per half litre, except for Foreign Material

^ Assessment and tolerance based on maximum weight per half litre sample

Appendix J

Proposed Trial 2011/12 Season

The following outlines considerations to be included in a trial of the proposed changes for the 2011/12 season. Industry should note that an additional trial potentially more widespread and with a greater level of information collected will be proposed for the 2012/13 season.

Key Trial Principles

1. To be conducted across a range of regional areas representing the different weed seed status of the crop growing region
2. All commodities as listed in this document to be included in the trial
3. GTA will review the need for trials in 2011/12 with the pulse and oilseed industries or if these should be done in the following year
4. As many grades as possible be included in the trial
5. Preference for grower load samples to be used for the collection of data
6. Preference to target sites allocated to the export and domestic market and for some domestic end-users to be included in the trial
7. Proposed revised tolerances not to be introduced for 2011/12
8. Following classification of a load, a sample to be collected and assessed as per the proposed weed seed tolerances
9. Data collection per sample to be:
    a. As per existing 2011/12 standards
    b. As per proposed weed seed tolerances, including other changes as listed for each commodity
    c. Sufficient data collected on each sample to enable a direct comparison of the two "standards" that exist/may apply
    d. Sufficient information collected to enable a decision to be made on the impacts of the proposed changes on the classification of the sample
10. Preference is for samples to be assessed post-harvest or away from the sample stand so as to minimise impacts on delivery
11. A record be kept of the other implications of the proposed changes on the classification process as outlined in the "key principles under point 1" of this document, including the time taken for the assessment, the need for assessment of each category and the impact of the changes on the relative ease of classification
12. It is preferred that sites and samples be targeted where reasonably high levels of foreign material could be expected
13. Industry is encouraged to participate in the trials or conduct their own and provide data on a confidential basis to GTA. However to ensure adequate data is collected and provided, it is preferable if the trial protocol is reviewed by GTA prior to commencement