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Member Update

Title: **GTA Standards Review – Call for Submissions**

Update No.: **4 of 14**

Date of Issue: **28 February 2014**

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

Proposed GTA Standards 2014/15 Season

1. Background

During deliberations on the development of Grain Standards (Standards) for the 2013/14 season, feedback was received by GTA from industry on the proposed changes for 2013/14 and potential changes for the following season 2014/15.

The GTA Standards Committee (Committee) has recently met to discuss prior industry feedback and potential Standards for 2014/15. The Committee also considered industry feedback on two papers released for comment in late 2013:

- Weed Seed review
- Nil Tolerance review

This document lists:

- Section 3 - Agreed changes for adoption in the 2014/15 season;
- Section 4 - Proposed changes for 2014/15 where further industry advice is required;
- Section 5 - Previously advised changes that will not occur;
- Section 6 - Issues for further industry consideration; and
- Section 7 - Revised Weed Seed tolerances to apply for 2014/15.

In this document Cereals refers to wheat, barley, sorghum, maize, oats, cereal rye and triticale.

2. Industry Feedback

The Committee is seeking industry comment on the issues outlined in this document and on any other Standards related issue.

Submissions should be received by COB Friday 21st March 2014.

Please lodge your submissions by sending to admin@graintrade.org.au and title your email – Standards Review 2014/15.

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

Unless marked “confidential” and appropriate supporting reasons are provided, all submissions will be placed on the GTA website for industry review.

3. Agreed Changes for Adoption in the 2014/15 Season

3.1 Agreed Change: Minor Word Changes – Various Commodities

Minor changes to wording in standards will occur to increase clarity and reflect the timing of application of the standards:

- Reference to the document "Australian Grains Industry Post Harvest Chemical Usage Recommendations and Outturn Tolerances" will be altered to refer to the most recent version released and available on the GTA website at http://www.graintrade.org.au/storage_and_handling
- Reference to the National Residue Survey will be altered to include "bulk export terminal operators, Bulk Handling Companies and processors" as these had previously not been included in all Standards. The wording now refers to "All grain exporters, container packers, bulk export terminal operators, Bulk Handling Companies and processors are encouraged to actively participate in the NRS grains residue monitoring program". This change reflects wording in the GTA Code of Practice for the Management of Grain along the Supply Chain.

3.2 Agreed Change: Visual Recognition Standards Guide – Various Commodities

In 2013/14 GTA produced a revised version of the Visual Recognition Standards Guide (VRSG). It included wheat, barley, sorghum, oats, maize, canola, desi chickpeas, Angustifolius lupins and red lentils.

During 2014 the Committee intends to review the VRSG for those commodities to ensure it remains applicable. Industry will be advised where definitions are proposed to be altered as part of that review process.

Industry is encouraged to:

- Comment on the suitability of the existing VRSG for each commodity.
- Provide a list of other commodities and particular grain defect types that should be considered for inclusion in the 2014 VRSG due for release in August.

3.3 Agreed Change: Weed Seed Categories and Tolerances – All Cereals

In 2011 the Committee commenced a review to simplify the categories of weed seeds, their tolerances and the method of assessment. Proposals have been provided to industry for comment:

- September 2011 – initial proposal.
- August 2012 – revised proposal following consideration of industry feedback and a review of 2011/12 trial results.
- November 2013 – a further discussion paper incorporating various changes based on the 2012/13 trial results.

The Committee has considered all previous industry feedback and the most recent 2013/14 trial data. At Section 7 of this discussion paper are the revised weed seed categories and tolerances to apply for each cereal commodity for 2014/15.

Industry feedback is sought on the proposed introduction of these changes for the 2014/15 season. Section 7 re-iterates the key outcomes desired of the revised weed seed categories and tolerances to apply. In particular, industry should note:

- All sections of each GTA Standards Booklet, including Definitions, Quality Charts and Methods and Procedures will be altered to reflect the revised weed seed categories and tolerances.
- The proposed changes are significant and will require training for all staff involved in assessment of grain as per GTA standards.
- The Committee will review the weed seed categories and tolerances in developing the 2015/16 season standards to ensure they remain effective.
- As described under Section 6 a review of the Foreign Material category is underway. This may impact on the weed seed categories and tolerances in future seasons once finalised.
- The Committee will approach other commodity Standards Committees seeking adoption of the revised weed seed categories for other commodities where relevant.

3.4 Agreed Change: Various Defective Grain Definitions – All Cereals

When developing the 2013/14 Standards, the Committee advised industry of the annual review of the definitions for various defective quality parameters for each commodity to ensure they are clearly defined and consistent with the VRSG.

For 2014/15, that review has identified the following changes to definitions:

3.4.1 Broken Grain – Barley, Oats and Maize

For consistency across commodities, the definition for Broken grain for the above 3 commodities be altered to "¾ of a grain is sound" (i.e., more than ¼ missing is defective) for the 2014/15 standards, as per the current barley definition. The VRSG photos reflect this revised definition.

3.4.2 Shot Grain – Oats

It was noted the visual detection of Shot oats is problematic due to the difficulty to actually seeing Shot on individual grains as depicted in the VRSG.

Given the impracticality of assessing this parameter, it was agreed that Shot be removed from the Oats standard for 2014/15.

3.4.3 Sprouted & Field Fungi Grain – Sorghum & other commodities as required

During development of the 2014 version of the VRSG the definitions and photographs in the VRSG will be reviewed for clarity and to reduce the potential for mis-interpretation. While industry has sought the review for sorghum, all commodities will be considered.

3.5 Agreed Change: Standards Implementation Date Summer Crops

Currently the GTA Standards are implemented on an annual basis as follows:

- Winter crops – 1 August
- Summer Crops – 1 October

The Committee noted its advice to industry in 2013 of "to provide additional time for development of summer crop standards, the Committee has considered adopting a timeline of 1 November for all summer crops".

Industry feedback on the impact of this proposed date change indicated there was not a requirement for a later date. As the timeframe for development of standards is considered adequate and to apply a common date for application of standards, the Committee agreed to alter the implementation date for application of standards for all commodities to 1 August.

3.6 Agreed Change: Removal of Obsolete Grades

As previously advised to industry given that these grades are no longer in general use by industry, the following grades will be deleted from the 2014/15 standards:

- Wheat – PNC
- Wheat – PNE
- Maize – Gritting Maize

4. Potential changes for 2014/15 where further industry advice is required

4.1 Proposed change: Definition of Nil Tolerance for Heat Damaged, Bin Burnt, Mouldy and Animal Excreta – All Cereals

A discussion paper was released to industry in late 2013 seeking industry views on a change to the nil tolerance for several quality parameters in all cereal standards (see Member Update No. 39 0f 13 http://www.graintrade.org.au/news/member_updates). The Committee has considered industry feedback on that discussion paper. Further industry comment is sought on the revised changes as outlined below that are proposed to apply to all cereal commodities for the 2014/15 season.

4.2 Heat Damaged, Bin Burnt, Mouldy

The following tolerances, as initially proposed in the discussion paper, will apply for the 2014/15 season:

Maximum Tolerance to Apply	Commodity & Grade
1 grain by count per 0.5L	Wheat – All milling grades, including AUH2, AGP1, SFT2, ANW2, DR1, DR2, DR3, HPS1, SFW1
	Barley – All malt grades, F1
	Triticale
	Cereal Rye
	Oats – all grades
5 grains by count per 0.5L	Wheat –FED1
	Barley – F2
No change to the existing Tolerance for Heat Damaged, Bin Burnt (0.6% by wt). Includes a new maximum for Storage Mould of 0.05% (by wt).	Sorghum – All grades. Note – Definition now includes Heat Damaged, Bin Burnt, Storage Mould
No change to Tolerance	Maize – no change to definition or tolerance.

The definitions and references in the standards and VRSG photos for Heat Damaged, Bin Burnt and Mouldy will be altered to reflect the proposed revisions as outlined above.

Industry should note there is a large range of training programs and publications that promote best practice for grain storage to minimise the presence of Heat Damaged, Bin Burnt and Mouldy. For industry guidance, GTA will reference some of this material in a Technical Guideline Document as an adjunct to the Code of Practice.

4.3 Stones

The following tolerances, as initially proposed in the discussion paper, will apply for the 2014/15 season:

Maximum Tolerance to Apply	Commodity & Grade
Max weight of 4.0g for all stones per 2.5L retained above the applicable screen for that commodity.	All commodities and all grades. Note – material passing through the screen is classified as Sand/Earth.

The definitions and references in the standards for Stones (and Sand/Earth as applicable) will be altered to reflect the proposed revisions as outlined above.

4.4 Animal Excreta

The following tolerances, as initially proposed in the discussion paper, will apply for the 2014/15 season:

Maximum Tolerance to Apply	Commodity & Grade
1 dropping by count per 2.5L sample.	All commodities and all grades. Note – definition changed to Rodent (rat or mice) Droppings. The existing nil tolerance for Other Animal Excreta is to continue to apply.

Discussion:

- Differing views on this proposal were received from industry, as summarised below.
- The Committee considers the overall benefits of the proposal warrant the change.
- A review of the impact of the changes will occur in developing the 2015/16 standards.
- The intention of the change is to permit low levels of contamination that are "unintended". The change does not condone poor storage and hygiene practices. Where practical, measures to prevent or minimise contamination (e.g., during mouse plagues) or grain cleaning may be required. For industry guidance, GTA will cite "good storage and hygiene practices" reference material in a Technical Guideline Document as an adjunct to the Code of Practice.

<u>Views Supporting the Proposal</u>

- Low levels may not be a food safety issue.
- A nil tolerance creates a significant marketing risk, especially in times of mouse plagues etc.
- Detection of 1 piece of excreta could lead to rejection of that grain when applying current industry Standards at all stages along the supply chain except at vessel loading.
- Low tolerances for Rodent and Vermin Droppings are applied in export legislation as outlined below:

Rodent and vermin droppings	(i)	In any single sample (2.25 L or equivalent) not more than seven droppings
	(ii)	In any two consecutive samples (each sample 2.25 L or equivalent) not more than four droppings in total
	(iii)	Nil in mungbeans

- No marketing or food safety issues have been raised by customers in exported product.
- Competitor standards such as Canada, USA allow low levels of these contaminants.
- Various exceptions to standards are listed (and may continue to apply despite the change in standards) by some storage providers in their storage and handling contracts to deal with the impracticality of applying nil.

Views Opposed to a Change from Nil Tolerance

- There is a desire by customers for a nil tolerance in all grain.
- The current nil tolerance ensures that Australian grain maintains a higher reputation over that of our major competitors who have tolerances for Animal Excreta in their standards.
- The image and reputation of Australian grain as "clean" must be maintained.
- Grain should not be treated as a commodity but as a raw food product and standards should reflect the intended use of the grain.
- Rodents may transmit diseases to humans and livestock.
- A high level of droppings such as those arising through poor storage hygiene is likely to become a food safety issue. Some of the highly pathogenic Salmonella species (e.g. *S. typhimurium*), are known to be carried by rodents.
- Rodent droppings may be difficult to remove from grain prior to processing.
- Droppings may contain other animal material such as hair, where a different tolerance may apply (i.e., nil).
- Even if removed, other contaminants (urine etc) may be present in grain.

4.5 Proposed Change: Total Admixture – Sorghum

A proposal was received from industry to delete the category of "Total Admixture" in all sorghum grades. The Committee considered several aspects related to this proposal:

- The category of Total Admixture is generally not assessed.
- Individual quality parameters included in Total Admixture (Foreign Material, Screenings, Trash) are assessed separately and the levels detected are compared to those outlined in the standards.
- There was general agreement that if Total Admixture was removed, the existing tolerances of Foreign Material, Screenings and Trash were suitable and should remain for each grade.

Industry comment is sought on the proposal for deletion of Total Admixture in 2014/15 season standards for all sorghum grades.

Refer also to 6.1 below.

5. Previously Advised Changes that will not proceed

5.1 Snail Tolerances – All Commodities

A review of the current definitions and tolerances for snails has been undertaken to determine if any changes were required. The Committee:

- Recognised that significant efforts are being implemented to control snails on-farm and to minimise contamination of loads tendered for delivery.
- Was advised that during the 2013/14 harvest period:
    - No significant issues arose with snail contamination of loads.
    - During 2013 no major marketing issues arose with snail contamination of grain supplied on the domestic or export market.

The Committee determined that current definitions and tolerances for snails are adequate and no changes are warranted in the 2014/15 standards.

6. Issues for further Industry & Committee Consideration

6.1 Human Consumption Grade – Sorghum

Refer also to 4.5 above.

A submission was received from industry seeking a change to the Sorghum No.1 grade, with a significant reduction in the tolerance for parameters such as Total Admixture and Defective grains. The main drivers for the request were:

- The need for a more suitable sorghum product to be supplied to the China market for wine production.
- To enable Australian sorghum to be of comparable quality to that of the USA.

The Committee considered the request and noted:

- While separate, this issue should be considered with the proposal as per 4.5 to delete Total Admixture.
- The existing sorghum standards are designed for the stockfeed industry but are increasingly being used for the human consumption / industrial market.
- The existing No.1 grade is suited to the domestic and various export markets.
- An alternative to revision of the No.1 grade is to create a "human consumption grade" standard of higher quality.

Industry comment is sought on the Committee proposal to:

- Create a grade of higher specification than the existing No.1 grade for inclusion in the 2015/16 standards.
- If agreed to be developed, appropriate specifications for this grade.
- The suitability of all existing sorghum grade standards.

6.2 Falling Number/Germination – Malt Barley

Industry was previously advised in some instances grain was received as Malt according to the Standards with no visual identification of shot/sprouted grains. On outturn post-harvest this grain was tested at the destination using Falling Number (FN) equipment and results were below the tolerance for the grade. Grain was rejected on that basis. Germinative Capacity was not affected and grain was subsequently determined suitable for malting.

The Committee has considered data generated on Malt during storage since the issue was initially raised by industry. At present:

- There is insufficient data to support a potential change in FN or Rapid Visco Analyser (RVA) for malt grades.
- While germination is a key quality factor considered by maltsters, FN and/or RVA continue to be used for contractual purposes and as an indicator of quality.
- While FN is the main assessment tool, RVA is also used for field assessment of loads tendered for delivery.
- Variety influences the FN/RVA values in harvested grain at receival, even in "good" quality grain.
- Further research is required to determine if there is a need or the basis for changing the FN/RVA standard limits in Malt grades.

The Committee will continue to review the issue, including addressing the need for further research to be conducted to obtain the necessary data to change FN/RVA limits if required. As the issue remains unresolved, no changes are proposed to the standards for 2014/15.

Industry will be advised in due course of the findings of the Committee.

6.3 Review of Foreign Material Category – All Commodities

As part of the review of weed seeds (see 3.3) the Committee identified a number of associated issues that needed further review:

- The potential need for a Foreign Material category in those standards currently where one doesn't exist.
- The different definitions for Foreign Material in various commodities may lead to mi-interpretation and incorrect classification of grain. Harmonisation of the definition across all commodities is a goal.
- Different definitions and tolerances for some parameters potentially to be included within the revised Foreign Material category should be reviewed, specifically Sticks.
- The assessment of a 0.5L sample for parameters within Foreign Material (and Defective grain) can be problematic.
- If the sample size for assessment was altered, consideration would be required for inclusion in the standards of an appropriate method for obtaining a representative sub-sample.

To progress the issue:

- A trial will be conducted during 2014 to consider the above aspects with the main outcome to determine if the goal of a harmonised definition and inclusion of a Foreign Material category in all standards can be achieved.
- The trial would include all elements within the potential new category, with specific reference to Sticks.
- The trial would include an evaluation of the sample size used for assessment of defective quality parameters and contaminants.

6.4 Reference Screen Specifications

Discussion occurred on the need to consider this issue given the long period it has been under review:

- It was noted reference specifications should be included for all commodities to assist in particular situations such as disputes.
- Both the practicality of manufacture and availability of screens should be considered when setting reference specifications.
- Specifications could cover a wide range of criteria for each screen.

The committee agreed to progress this issue and initially pursue development of reference screen specifications for all cereal commodities.

Industry comment is sought on:

- Screen specifications for those screens currently in use by industry
- Potential specifications for reference screens

7. Weed Seed Industry Consultation Paper Proposed Standards 2014/15

Contents

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.

The Committee has developed the proposed changes on the basis of 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-F to be done by count for most commodities

1.4 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

1.5 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'

1.6 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

1.7 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

1.8 Existing tolerances are not significantly altered

- Existing tolerances for individual weed seeds have generally been in place for many years, enabling the successful production and 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 noted.

2. Other Considerations

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

2.1 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.

- Pieces of weed seed pods are not encouraged or wanted by the marketplace.
- Pieces of pods with seeds removed are included in Unmillable Material above the Screen or Foreign Material as per the prior definition.
- The exception is Peanut pods, which will remain as a NIL tolerance (Category A) due to potential allergenic effects.

2.2 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
- 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 initially recommended 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
- As a consequence of this weed seed review, the Committee has recommended a Foreign Material category is not developed for each commodity for 2014/15. The time taken to assess Foreign Material in each sample was considered excessive and not warranted given that time. Therefore existing Foreign Material categories will remain where currently listed in each standard. However a review will occur in 2014 to consider potential changes in future standards.

2.3 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

2.4 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

2.5 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 has created consistency in the proposed Standards across the country but recognises the need for variations arising from commercial issues

2.6 Other Contaminants

- In many commodity Standards a range of categories and tolerances exist for other contaminants – for example, Small Foreign Seeds, Unmillable Material above the screen, pieces of weed seed pods (with seeds removed).
- These separate categories generally have low tolerances
- In the 2014 Foreign Material review, the Committee will review those existing separate categories and tolerances with a view to simplification of the Standards where possible via

deletion of these individual categories and creation of one category that includes all of these contaminants

3. Changes for the 2014/15 season

3.1 Revised Weed Seed Categories

The following weed seed categories will apply 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 (in Oats only)	30
E. Visual / Unsightly	Type 7a	Low for milling#
		Higher for off-grades#
F. Common Contaminants^	Type 7b (except Black /Wild Oats)	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

^ For Barley only, a separate Category exists for Black/wild oats.

3.2 Other Weed Seed Contaminants

The existing definitions and tolerances of the three categories associated with weed seeds will remain. As noted above, the potential to combine these into one category will continue to be explored in future seasons. These include:

- Small Foreign Seeds
- Unmillable material above the screen (including where relevant milk thistle pods and wild radish pods)
- Whole or pieces of Weed Seed Pods (with weed seeds removed)

4. Discussion on Changes

The following details specific changes to various weed seeds and commodities.

4.1 Category A

- Branched broomrape has been deleted from this type. It has been removed from the list of restricted weed seeds as it cannot be assessed visually.

4.2 Category 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 new tolerance is to apply to individual seeds across all categories A to E.

4.3 Category F – Barley only

- Black/wild oats is the only weed seed in this category that has been created for barley only.
- Inclusion of black/wild oats in Category G would have led to significant downgrading of loads. The revised tolerance should have little impact on deliveries and should be able to be readily achievable by the production sector in most seasons.

4.4 Category F – all commodities (Category G for barley only)

- All seeds are to be combined in this category, as previously applied.
- This category now includes a number of weed seeds previously included in other types.
- Note that for oats, black/wild oats is included in category C or D depending on the grade. This tolerance was created given the difficulty of removing black/wild oats from common oats prior to processing.
- For barley only, this category is Category G.

4.5 Type 7a – all commodities

- In general, prior tolerances for lower quality grades have been reduced.

4.6 Small Foreign Seeds – all commodities – no change

- 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.
- While waiting for the outcomes of the Foreign Material review, SFS will remain in standards.

4.7 Unmillable Material Above the Screen – no change

- 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 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.
- While waiting for the outcomes of the Foreign Material review, this category will remain in standards.

4.8 Seed Pods – all commodities

- Seed pods are currently assessed within various weed seed categories, depending on the commodity.
- It is proposed that all seeds be removed before assessment and the tolerance for particular seeds apply.
- The pieces of seed pods remaining after seed removal will be classified as Unmillable Material above the screen or Foreign Material, whichever is applicable.

4.9 Wheat – Appendix C

- The prior proposal to adopt a Foreign Material category to reflect most export contractual requirements is not to progress.
- SFE2 (SA) has been removed from the list of milling grades for the purposes of weed seed tolerances.

4.10 Barley – Appendix D

- The prior “Foreign Grain, Variations and 7b” categories have been removed as separate categories and included in a new Category G.
- With the inclusion of all material including “foreign grain, variations” and 7b in Category G, this may be a significant tightening or loosening from previous tolerances depending on the weed seed present in the sample.

4.11 Oats – Appendix E

- Category C is a tightening from the previous tolerance.
- Category F now includes the existing type 7b, however tolerances have been revised.
- Black oats are in Categories C or D depending on the grade.

- SFS has been increased for consistency from 0.5% to 0.6% for Prime and Milling oats.

4.12 Triticale – Appendix F

- Category F now includes the existing type 7b, however tolerances have been revised.
- Category E contains pulses, with a tighter tolerance than previously applied.
- Black oats have been removed from category D and placed into category F.

4.13 Cereal Rye – Appendix G

- Category F now includes the existing type 7b, however tolerances have been revised.
- Black oats have been removed from category D and placed into category F.

4.14 Sorghum – Appendix H

- Grades No.2 and No.3 now split into separate categories due to differences in tolerances for categories E & F.
- Existing SFS category and tolerance remains except for No.3.
- For No.3, have a separate category E & F from all other commodities which is the previous grouping at 4% by weight. This includes saffron thistle and SFS.

4.14 Maize – Appendix I

- Existing SFS category and tolerance remains except for Prime which moves from 0.5% to 0.6%.
- Existing 7b, now F category, for Feed No.2 is reduced from 100 to 50 seeds per half litre.
- Gritting remains at 0.1% by wt all Foreign seeds in expectation the grade will be deleted.

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.

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.

Current and Proposed Weed Seed Categories

Appendix A

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	No change	No change, other than includes pieces of pod only.
Small Foreign Seeds Max (% by weight)	All Foreign Seeds not specified in Types 1-7(b) that fall below the screen during the Screenings process	No change	All Foreign Seeds not specified in Categories A-F that fall below the screen during the Screenings process
Foreign Seed Contaminants Max - (count of individual seeds 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	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, **Double Gees/Spiny Emex/Three Cornered Jack,** 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	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), 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 and any other seeds greater than 5mm in diameter
Foreign Seed Contaminants Max - (count of all seeds in total per half litre)			
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 screen following the Screenings process	F	Barley (2 & 6 row), **Bellvine**, Bindweed (Australian), Bindweed (Black), **Colocynth**, **Cutleaf Mignonette**, Durum, Red/Spring Feed Wheats**, Hoary Cress, New Zealand Spinach**, **Oats (Black/Wild) (except in Oats),** Oats (Sand), Oats (Common), **Poppy (Field, Horned, Long Head, Wild)**, Rice, Rye (Cereal), **Sesbania Pea**, **Skeleton Weed**, Sorghum (Grain), Triticale, Turnip Weed, **Variegated Thistle** and any other Foreign Seeds not specified in **Category A-E**, in SFS or in Unmillable Material Above the Screen that remain above the screen following the Screenings process

Note: **bold and underlined** altered or removed from previous existing weed seed type and proposal is to be placed in a different specific category (A-F). Variations are proposed for Oats and Barley.

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. 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
- All other weed seeds not listed in categories A-E, SFS or unmillable material

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

Category	Weed Seed	Reason for Inclusion in Category
A - Nil	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	Move to category F - agronomic
	Bulls Head / Caltrop / Cats Head	Feed Impact
	Cape Tulip	Toxicity
	Colombus Grass	Quarantine
	Cottonseed	Quarantine, Taint to milling
	Dodder	Quarantine
	Double Gees / Spiny Emex / Three Cornered Jack	Feed Impact
	Heliotrope (Blue)	Toxicity
	Heliotrope (Common)	Toxicity
	Johnson Grass	Quarantine
	Noogoora Burr	Feed Impact
	Parthenium weed	Quarantine
	Thornapple	Toxicity

Category	Weed Seed	Reason for Inclusion in Category
	Vetch (Tare)	Toxicity
	Vetch (Commercial)	Toxicity
C – Medium Toxicity / Quarantine	**Colocynth**	Move to category F - agronomic
	Jute	Toxicity
	Knapweed (Creeping/Russian)	Taint
	New Zealand Spinach	Move to category F - agronomic
	Poppy (Field)	Move to category F - agronomic
	Poppy (Horned)	Move to category F - agronomic
	Poppy (Long Head)	Move to category F - agronomic
	Poppy (Mexican)	Toxicity
	Poppy (Wild)	Move to category F - agronomic
	Saffron Thistle	Quarantine - Tasmania
	Sesbania Pea	Move to category F - agronomic
D – Low Toxicity / Quarantine	Bindweed (Field)	Toxicity
	Cutleaf Mignonette	Move to category F - agronomic
	Darnel (Drake Seed)	Taint
	Hexham Scent/Meliot	Taint
	Hoary Cress	Move to category F - agronomic
	Mintweed	Toxicity
	Nightshades	Toxicity
	Paddy Melon	Toxicity
	Patterson's Curse / Salvation Jane	Toxicity
	Skeleton Weed	Move to category F - agronomic
	Variegated Thistle	Move to category F - 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
	And any other seeds greater than 5mm	Unsightly
F - Agronomic	All other weed seeds not listed	All other weed seeds not listed, except Black Oats/Wild Oats in Oats

Note:

1. **Bold and underlined** removed from previous existing weed seed type and proposal is to be placed in a different specific category (A-F).

2. Category F for Barley reverts to Category G, with Category F containing Black/wild oats only.

Revised Weed Seed Categories – Wheat

Table 5: Revised weed seed categories and tolerances – Wheat

Category	Revised Definition	Grade		
		Milling Grade*	AUH2, AGP1, AUW1, HPS1, DR3, SFE2(SA), SFW1	Fed1
Count of individual seeds per half litre:				
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10		
D	Bindweed (Field), 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 and any other seeds greater than 5mm	1	10	20
Count of all seeds in total per half litre:				
F	Includes all other weed seeds not listed elsewhere in the Standards (includes black/wild oats)	50	150	400
Existing Definitions and Tolerances (Max % by weight per half litre sample) remain:				
Current Category	**Current Definition**	**Milling Grade***	**AUH2, AGP1, DR3, SFE2 (SA), SFW1**	**AUW1, HPS1, Fed1**
SFS	All Foreign Seeds not specified in category A-F that fall below the 2.0mm screen during the Screenings process	0.6%	0.6% ANW2 1.2% all other grades	2.6%
Unmillable Material above the screen	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods and pieces of seedpods. Excludes contaminants where tolerances already exist	0.6%	1.2%	1.2%

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

Appendix D

Revised Weed Seed Categories – Barley

Table 6: Revised weed seed categories and tolerances – Barley

Category	Revised Definition	Grade				
		Malt1	Malt2	Malt3	Feed1	Feed2
Count of individual seeds per half litre:						
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5				
C	Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10				
D	Bindweed (Field), 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 and any other seeds greater than 5mm	1			10	20
F	Black/wild oats	25			50	100
Count of all seeds in total per half litre:						
G	Includes all other weed seeds not listed elsewhere in the Standards [previous Type 7b, Variations (wild radish), Foreign Grain (wheat, cereal rye, triticale, oats, rice)]	50			150	300
Existing Definitions and Tolerances remain:						
Foreign Material	Other than already specified. Includes pieces of seed pods (Max % by weight per half litre sample)	1.0%				
Coloured Aleurone Layer	Coloured Aleurone Layer (Blue/Black) (Max count per half litre)	Nil			100	
SFS	All Foreign Seeds not specified in category A-G that fall below the 2.2mm screen during the Screenings process (Max % by weight)	0.6%			1.2%	2.0%

Revised Weed Seed Categories – Oats

Table 7: Revised weed seed categories and tolerances – Oats

Category	Revised Definition	Grade		
		Prime	Milling No.1	Feed No.1
Count of individual seeds per half litre:				
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	Black/Wild Oats (all grades except Feed No.1), Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10		
D	Bindweed (Field), Black/Wild Oats (Feed No.1 grade only), 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 and any other seeds greater than 5mm	1		20
Count of all seeds in total per half litre:				
F	Includes all other weed seeds not listed elsewhere in the Standards	20	50	250
Existing Definitions remain (tolerances may vary):				
Unmillable Material above the screen	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods and pieces of seedpods (Max % by weight)	2.0%	n/a	
SFS	All Foreign Seeds not specified in category A-F that fall below the 2.0mm screen during the Screenings process (Max % by weight)	0.6%		3.0%

Revised Weed Seed Categories – Triticale

Table 8: Revised weed seed categories and tolerance – Triticale

Category	Revised Definition	Grade
		Triticale
Count of individual seeds per half litre:		
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5
C	Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10
D	Bindweed (Field), 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 and any other seeds greater than 5mm	1
Count of all seeds in total per half litre:		
F	Includes all other weed seeds not listed elsewhere in the Standards	150
Existing Definitions remain (tolerances may vary):		
Unmillable Material above the screen	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods and pieces of seedpods (Max % by weight)	5.0%
SFS	All Foreign Seeds not specified in category A-F that fall below the 2.0mm screen during the Screenings process (Max % by weight)	1.2%

Revised Weed Seed Categories – Cereal Rye

Table 9: Revised weed seed categories and tolerances – Cereal Rye

Category	Revised Definition	Grade
		Cereal Rye
Count of individual seeds per half litre:		
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5
C	Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	10
D	Bindweed (Field), 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 and any other seeds greater than 5mm	1
Count of all seeds in total per half litre:		
F	Includes all other weed seeds not listed elsewhere in the Standards	150
Existing Definitions remain (tolerances may vary):		
Unmillable Material above the screen	Includes whiteheads (with grains removed), chaff, backbone, Wild Radish pods, Milk Thistle pods and pieces of seedpods (Max % by weight)	3.0%
SFS	All Foreign Seeds not specified in category A-F that fall below the 1.6mm screen during the Screenings process (Max % by weight)	1.2%

Revised Weed Seed Categories – Sorghum

Table 10: Revised weed seed categories and tolerances – Sorghum

Category	Revised Definition	Grade		
		No.1 No. 1a	**No. 2**	**No.3**
Count of individual seeds per half litre:				
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	5		
C	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 and any other seeds greater than 5mm	20	50	4.0% by weight *
Count of all seeds in total per half litre:				
F	Includes all other weed seeds not listed elsewhere in the Standards	400		
Existing Definitions remain (tolerances may vary):				
SFS	All Foreign Seeds not specified in category A-F that fall below the 2.0mm screen during the Screenings process (Max % by weight)	1.6%		
Foreign Material	All material other than sorghum. Includes pieces of seed pods (Max % by weight)	4.0%		

* Assessment and tolerance based on maximum weight per half litre sample of all seeds in category E, category F and SFS combined. Tolerance of 4.0% by weight. Includes Saffron Thistle.

Revised Weed Seed Categories – Maize

Table 11: Revised weed seed categories and tolerances – Maize

Category	Revised Definition	Grade		
		Gritting*	Prime	Feed No.1, Feed No.2
Count of individual seeds per half litre:				
A	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, Double Gees/Spiny Emex/Three Cornered Jack, Heliotrope (Blue), Heliotrope (Common), Johnson Grass, Noogoora Burr, Parthenium weed, Thornapple, Vetch (Commercial), Vetch (Tare)	Nil	5	
C	Jute, Knapweed (Creeping/Russian), Mexican Poppy, Saffron Thistle	Nil	10	
D	Bindweed (Field), Black/Wild Oats, Darnel (Drake Seed), Hexham Scent/Meliot, Mintweed, Nightshades, Paddy Melon, Patterson's Curse/ Salvation Jane	Nil	30	
E	Broad Beans, Chickpeas, Corn (Maize), Cowpea, Faba Beans, Lentils, Lupins, Peas (Field), Safflower, Soybean, Sunflower and any other seeds greater than 5mm	Nil	20	
Count of all seeds in total per half litre:				
F	Includes all other weed seeds not listed elsewhere in the Standards	Nil	10	50
Existing Definitions remain (tolerances may vary):				
SFS	All Foreign Seeds not specified in category A-F that fall below the 4.75mm screen during the Screenings process (Max % by weight)	Nil	0.6%	1.6%
Foreign Material	All material other than maize. Includes pieces of seed pods (Max % by weight)	1.0%	3.0%	5.0%
Foreign Seeds	All foreign seeds other than maize (Max % by weight)	0.1%	n/a	

* Grade is recommended for deletion in 2014/15