

Machine Dressed Mungbean Standards

Machine dressed mungbean standards certificate to be issued only by AMA-accredited laboratories.

Grade	Sprouting	No. 1	Processing	Manufacturing
Appearance	<p>Equal to or better in appearance when compared to the AMA Mungbean Type Sample and the photographic charts and parameters.</p> <p>This is equal to or better than the Processing Grade AMA Mungbean Type Sample.</p> <p>For AMA Black Mungbean Types ONLY: The AMA Mungbean Type Sample has an even appearance, but 1.0% brown seed is acceptable.</p>	<p>Equal to or better in appearance when compared to the AMA Mungbean Type Sample and the photographic charts and parameters.</p> <p>The AMA Mungbean Type Sample has a brighter appearance than the Processing Grade and colour is to be more uniform.</p>	<p>Equal to or better in appearance when compared to the AMA Mungbean Type Sample and the photographic charts and parameters.</p>	<p>Equal to or better in appearance when compared to the AMA Mungbean Type Sample.</p>
Purity	<p>99%</p> <p>Inert / Foreign Material ≤ 1%</p> <p>Including:</p> <p>Splits ≤ 1%</p> <p>Soil/stone ≤ 0.1%</p> <p>Other seed's ≤ 0.1%</p> <p>Weeds to be reported</p>	<p>99%</p> <p>Inert / Foreign Material ≤ 1%</p> <p>Including:</p> <p>Splits ≤ 1%</p> <p>Soil/stone ≤ 0.1%</p> <p>Other seeds ≤ 0.2%</p> <p>Weeds to be reported</p>	<p>99%</p> <p>Inert / Foreign Material ≤ 1%</p> <p>Including:</p> <p>Splits ≤ 1%</p> <p>Soil/stone ≤ 0.1%</p> <p>Other seeds ≤ 0.3%</p> <p>Weeds to be reported</p>	<p>98%</p> <p>Inert / Foreign Material ≤ 2%</p> <p>Including:</p> <p>Splits ≤ 2%</p> <p>Soil/stone ≤ 0.1%</p> <p>Other seeds ≤ 0.5%</p> <p>Weeds to be reported</p>
Size Range	<p>All Grades</p> <p>AMA Large Green Mungbean Type</p> <p>AMA Small Green Mungbean Type</p> <p>AMA Black Mungbean Type</p> <p>AMA Dull Mungbean Type</p>	<p>98% to be retained above or between screens using 'Ten Shakes' sieving method</p> <p>98% of Seed > 3.25mm Slotted screen</p> <p>98% of Seed > 2.0 mm Slotted screen and < 3.25mm Slotted screen</p> <p>98% of Seed > 3.0mm Slotted screen</p> <p>98% of Seed > 3.25mm Slotted screen</p>		
Moisture	12%	12%	12%	12%
Defect type* – refer to photographic charts.				
Pod Scale*	3%	3%	12%	NA
Seed Coat*	1%	1%	2%	NA
Stained*	1%	1%	2%	NA
Wrinkled*	4%	4%	12%	NA
Objectionable material	Nil Tolerance	Nil Tolerance	Nil Tolerance	Nil Tolerance
Germination Excluding hard seeds	90%	NA	NA	NA
Over-soaks	10%	NA	NA	NA
Charcoal Rot	Absent at 28°C	NA	NA	NA
Salmonella spp.	Nil/25g	NA	NA	NA
E. coli	≤20cfu/g	NA	NA	NA
Listeria monocytogenes	≤100cfu/g	NA	NA	NA
Sprout Test	Suitable	NA	NA	NA

* To be determined in accordance with the applicable defect type chart.

NA = Not Applicable

Adopted: 1 August 2019

EXPLANATION OF THE AMA MACHINE DRESSED STANDARDS

- 1. Machine Dressed:** All mungbeans covered by these Standards are to be Machine Dressed (MD). Machine Dressed Mungbeans are defined as Farmer Dressed mungbeans that have received further post-harvest seed cleaning. It is a **requirement** that this further seed cleaning utilises both air-and-screen grading as well as gravity-grading equipment to substantially remove undesirable material.
- 2. Sampling:** For testing purposes, seed lines are to be represented by samples responsibly collected in accordance with a recognised sampling procedure such as those prescribed by Australian government regulatory authorities.
- 3. Appearance:** Based on visual assessment against the standard sample at the time of testing. Appearance is determined on uniformity of colour, shades of colour, insect damage, lustre, brightness of colour, condition of skin coat and any other characteristics that effect appearance. In conjunction with appearance test a photographic chart and parameters are to be used to determine overall grade.
- 4. Purity:** In accordance with ISTA rules (with the addition of analysis and reporting of splits).
- 5. Size Grading:** 98% must be above or between the screens as pertinent. The actual percentage and relevant AMA Mungbean Type will be recorded on the certificate.
- 6. Moisture:** In accordance with ISTA rules.
- 7. Defect Type:** Photographic charts are to be used in conjunction with appearance and parameter tests to determine overall grade. The five defect types; pod scale, seed coat damage, stained, wrinkled and dimples are identified using photographic charts to determine sound and defective seeds.
- 8. Objectionable Material:** As per Pulse Australia definition for objectionable material.

- 9. Germination:** In accordance with ISTA rules. Hard seed to be reported. Hard seeds not to be counted (excluded) as germinable seed..
 - 10. Over-soaks:** Percentage of mungbeans that absorb moisture after being submerged in water at 32°C for one hour.
 - 11. Charcoal Rot:** Presence of Charcoal Rot tested at 28°C for four days, to be recorded on the Certificate of Analysis.
 - 12. Microbiological Standards:** In accordance with Food Standards Australia and New Zealand (FSANZ) – Seed Sprouts (Standard 4.2.6). Pathogen test results are to be recorded on Certificate of Analysis.
 - Salmonella spp. = Nil/25g
 - Escherichia coli \leq 20cfu/g
 - Listeria monocytogenes \leq 100cfu/g
 - 13. Sprout Test:** As per AMA approved procedures
- Lowest grade of any one of the above tests will be the overall grade given.
- Below manufacturing grade is 'Sale by Sample'.

ENQUIRIES

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