

COCOA BEAN QUALITY ASSESSMENT REPORT

Sample ID: CH07896

Client: Huruma Cacao Co.

Origin: Uganda - Budibugyo Region

Evaluation Date: 11 May 2026

Prepared by: Cocoa Hub UK

1. Executive Summary

This cocoa lot is classified as Grade 1 (Premium Export Grade), suitable for premium chocolate manufacturing, speciality blending, and premium export markets.

Key quality indicators include:

- Low flat bean content (5%)
- **Under-fermented beans (2%) and slaty beans (2%), within Grade 1 tolerance**
- **Uniform medium-large bean size and colour, supporting strong yield and processing efficiency**
- No surface mould, clean light brown colour, mild acetic aroma, and no off notes

The lot shows excellent fermentation, uniform physical quality, moisture at 6.5%, and no insect damage or germination. Internal mould was recorded at 2%, with no other issues observed.

2. Sample Overview

- **Packaging: Clear sealed bag**
 - **Aroma: Mild acetic aroma, no off notes**
 - **Smoke Contamination: None detected**
 - **Bean Colour: Uniform light brown**
 - **Surface Condition: No surface mould observed**
 - **Bean Size: Medium-large, uniform size and colour**
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3. Physical Analysis

Bean Size & Count

- **Bean Count: 82 beans / 100g**
- **Estimated Bean Size Category: Medium-Large**

Commercial Impact:

Lower bean count indicates larger beans, which:

- Improve nib yield
- Reduce shell-to-nib ratio
- Improve processing efficiency
- Typically attract stronger pricing in premium export markets

Moisture Content

- **Measured Moisture: 6.5%**
- **Target Range:** 6.5% – 7.5%

Within optimal premium export parameters

4. Cut Test Analysis (50 Beans)

Fermentation Profile

- Well fermented: 94%
- Over-fermented: 2%
- Under-fermented: 2%
- Slaty: 2%

Fissuring Quality

- Very good: 95%
- Good: 5%

Internal Defects

- Internal mould: 2%
 - No insect damage
 - No germination
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Interpretation

Fermentation quality is excellent and aligned with premium export requirements:

- **Well-fermented beans at 90% exceed the minimum Grade 1 threshold**
 - This supports:
 - Strong flavour development
 - Balanced acidity with no off notes
 - High suitability for premium chocolate and speciality markets
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5. Defect Analysis (100 Beans)

- Flat beans: 5%
- Broken beans: None
- Germinated: None
- Internal mould: 2%
- Insect damage: None

Interpretation

The defect profile is low and supports Grade 1 classification, indicating:

- Good pod development and bean fill
- Consistent fermentation and drying
- Strong nib content and processing yield

No other issues observed

6. Grading Outcome

Final Physical Grade: → Grade 1

Classification Meaning

- Suitable for:
 - Premium chocolate manufacturing
 - Fine-flavour or speciality cocoa applications
 - Premium couverture and cocoa mass production
 - Not suitable for:
 - Low-grade industrial discount markets
 - Off-spec or reconditioned cocoa channels
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7. Commercial Assessment

Market Position

- Premium export cocoa
- Likely to attract Grade 1 premium market interest

Buyer Considerations

- Suitable for buyers prioritising quality, consistency, and premium flavour potential
 - Minimal blending requirements
 - Low risk for strict export contracts (EU/UK)
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8. Strengths

- Excellent fermentation quality
- Moisture content within premium export range
- Excellent fissuring quality
- No germination or insect damage

9. Key Quality Notes

- Flat beans within acceptable premium range (5%)
 - Under-fermentation and slaty beans both at 2%
 - Uniform medium-large bean size and light brown colour
 - No surface mould, no off notes, and only minor internal mould recorded at 2%
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10. Technical Recommendations

Fermentation Improvement

- Continue controlled wooden box fermentation (≥ 500 kg mass)
 - Maintain duration: 5-6 days
 - Turn beans every 48 hours
 - Maintain 45-50°C internal temperature
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Drying Optimisation

- Continue drying on raised beds or solar dryers
 - Target moisture: 6-7%
 - Avoid temperatures above 60°C
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Quality Control

- Implement:
 - Routine cut tests (≥ 300 beans)
 - Moisture monitoring before bagging
 - Sorting to remove flat and defective beans
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Storage & Transport

- Store in:
 - Low humidity ($< 70\%$)
 - Well-ventilated warehouses
 - Use:
 - Clean jute bags with liners
 - Dry, condensation-free containers
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Farm-Level Improvements

- Harvest only fully ripe pods
- Maintain soil nutrition (NPK balance)
- Continue pest and disease management

Final Verdict

This lot meets Grade 1 premium export standards and is suitable for premium chocolate manufacturing, fine-flavour applications, and speciality cocoa markets.

The Uganda - Budibugyo Region sample shows strong commercial potential, supported by excellent fermentation, uniform medium-large beans, clean aroma, and low defect levels.



Cocoa Hub Physical Quality Standard

(CHQS-01 – Cocoa Bean Grading Protocol)

Aligned with ISO 2451, ISO 1114, and ICCO Standard Grade principles.

Grade 1 – Premium Export Grade

Market Position: High-quality export cocoa suitable for premium chocolate manufacturing and speciality blending.

Cut Test Requirements (100 Bean Test – per ISO 1114)

- Well Fermented (Brown): $\geq 70\%$
- Under-Fermented (Purple): $\leq 10\%$
- Slaty: $\leq 2\%$
- Mouldy: $\leq 1\%$
- Insect Damaged: $\leq 2\%$
- Germinated: $\leq 1\%$
- Total Defects (combined): $\leq 3\%$

Physical Requirements

- Moisture Content: 6.5% – 7.5% (Maximum 7.5%)
- Bean Count per 100g: ≤ 90 (Medium to Large Beans)
- Foreign Matter: $\leq 0.5\%$
- No smoke contamination
- Clean aroma; moderate acetic acceptable

Commercial Suitability

- Premium couverture production
- High cocoa mass chocolate
- Speciality or fine-flavour blending
- Low rejection risk in EU/UK markets

Grade 2 – Standard Export Grade

Market Position: Good commercial bulk cocoa for standard chocolate production.

Cut Test Requirements

- Well Fermented: $\geq 60\%$
- Under-Fermented (Purple): 10–20%
- Slaty: $\leq 3\%$
- Mouldy: $\leq 2\%$
- Insect Damaged: $\leq 3\%$
- Total Defects: $\leq 5\%$

Physical Requirements

- Moisture: $\leq 7.5\%$
- Bean Count per 100g: ≤ 100
- Foreign Matter: $\leq 1\%$
- Clean to slightly acidic aroma
- No visible mould

Commercial Suitability

- Bulk chocolate manufacturing
- Cocoa liquor, butter, and powder processing
- Suitable for blending into higher grades

Grade 3 – Industrial / Fair Grade

Market Position: Acceptable for industrial processing but below premium export quality.

Cut Test Requirements

- Well Fermented: $\geq 50\%$
- Under-Fermented: 20–30%
- Slaty: $\leq 5\%$
- Mouldy: $\leq 3\%$
- Insect Damaged: $\leq 5\%$
- Total Defects: $\leq 8\%$

Physical Requirements

- Moisture: $\leq 8\%$ (borderline export limit)
- Bean size may be inconsistent
- Possible elevated acidity
- Minor smoke traces may be present

Commercial Suitability

- Industrial processing
- Blending grade
- Higher rejection risk in premium contracts

Grade 4 – Substandard / Off-Spec

Market Position: Not suitable for export without reconditioning.

Characteristics

- Under-Fermented: > 30%
- Slaty: > 5%
- Mouldy: > 3%
- Insect Damaged: > 5%
- Total Defects: > 8%
- Moisture: > 8%
- Strong smoke, mould, or off-odour detected

Commercial Suitability

- Requires reconditioning
- Domestic market only
- High probability of contract rejection