
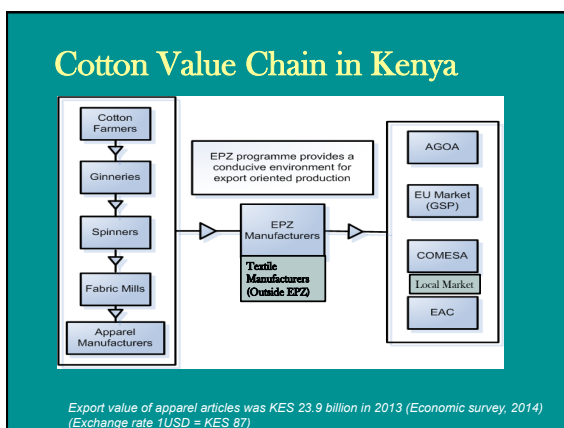


Development of a National Cotton Classing System in Kenya for Competitiveness and Sustainability

XII MEETING OF SOUTHERN AND EASTERN AFRICA COTTON FORUM (SEACF)

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Effects of Fibre Quality to competitiveness

Kenyan products /Fashion & casual wear

- Even small contaminants cause rejection of fabrics and garments resulting in millions of Dollars of claims on spinners and suppliers
- Reduced contamination levels will result in higher prices to seed cotton producers



What has been done to achieve ...

Government Enforcement of grading standards and classification

Examples: 1. Crops Act, 2013
 2. Cotton (General) Regulations, 2014

Common before



Cotton used to be Ungraded when selling but this has been discouraged through regulations

Improved packaging promoted



Cotton bags packaging Being promoted

What has been done to achieve ...

- Increased strict grading at the market points for seed cotton;
- Differential payment according to grade A and B with better grades attracting high prices as an incentive to grading;



Instrument Cotton Fibre Classing



Introduction of Lint Base Grade

Chart showing Base Grade, start of Premium and Discount levels

Colour		Colour		Leaf (% Trash area & # of particles)		Staple Length		Micronaire	
Descriptor	Code	Descriptor	Code	Descriptor	Code	Measurement	Code	Measurement	Code
Good Middling (GM)	1	White	1	Level 1 (Leaf)	1	1.1 inch	32	2.8 and below	08
Good Middling (GM)	2	Light Spotted	2	Level 2	2	1.1 1/4"	33	2.9 through 3.0	09
Middling (MD)	3	Spotted	3	Level 3	3	1.1 1/2"	34	3.1 through 3.2	02
Short Low Middling (SLM)	4	Trayed	4	Level 4	4	1.1 3/4"	35	3.3 through 3.4	03
Low Middling (LM)	5	Yellow Stained	5	Level 5	5	1.1 1/2"	36	3.5 through 3.6	04
Good Ordinary (GO)	6					1.1 1/4"	37	3.7 through	05
Good Ordinary (GO)	7					1.1 1/2"	38	3.8 through 3.9	06
Best Grade (BG)	8					1.1 3/4"	39	4.0 through 4.1	07

[Optical method] NOT Mechanical (Used by most Mills)

Natural length applies and this table is an illustration of possible staple lengths

Testing procedures developed using CSITC guidelines
Samples handling and capacity building ongoing for users
Classers trained

HVI Data Interpretation

Bale ID	Micronaire (Mic)	Maturity (Mat)	Staple length (mm)	Uniformity Index (UI)	Short fibres content (SFC)	Fibre Strength (St)	Elongation (El)	Colour Grade (CG)	Trash ID (Leaf Gre)
05-2013-001-002	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-003	Base range	Mature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-004	Premium	Mature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-005	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-006	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-007	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-008	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-009	Premium	Mature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-010	Premium	Immature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable
05-2013-001-011	Premium	Mature	Medium	Medium	Low short fibre content	Medium	Low elongation	Strict Middling	Acceptable

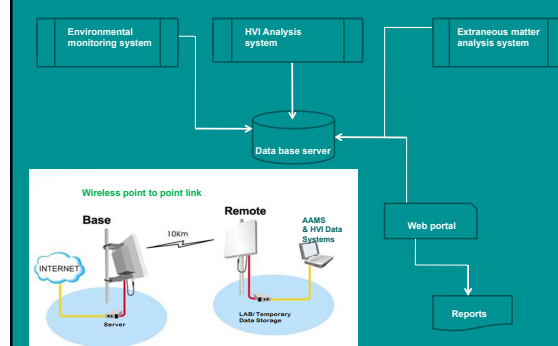
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Extraneous Matter Assessment

Bale ID	Ginning Assessment	Defects	Extraneous/Foreign Matter Present	Remarks
05-2013-001-002	FAIR	3	Grass	Excess Crushed Seeds, Excess Whole Seeds
05-2013-001-003	FAIR	2	Grass	Excess Whole Seeds
05-2013-001-004	FAIR	2	Grass	Excess Whole Seeds
05-2013-001-005	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-006	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-007	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-008	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-009	FAIR	2	Grass	Excess Whole Seeds
05-2013-001-010	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-011	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-012	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-013	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-014	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-015	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-016	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-017	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-018	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-019	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-020	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-021	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-022	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-023	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-024	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-025	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-026	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-027	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-028	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-029	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-030	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-031	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-032	FAIR	3	Grass	Excess Whole Seeds
05-2013-001-033	FAIR	3	Grass	Excess Whole Seeds

Cs=crushed seed, Pr=preparation, Bs=Broken seed, Sd= Whole seed
* =Present , ** = Excessive

Cotton classification system flow chart



General Quality –commercial varieties

2012/13 season

Quality parameter	Value
MIC	3.65 - 4.3 (Fine – Medium)
Strength GPT	28+ (Average)
Length (mm)	27+ (Medium)
Trash %	< 1.5%

2 new commercial varieties with better fibre qualities about to be released

Key challenges

- Participation in the international system (re-tests) to assess quality of the fibre laboratory test results (annual renewal of calibration materials & participation in round trials in process)
- Test services fee charged to ginners and spinners may not sustain HVI business (low volumes)

Main operational costs
 -maintenance of equipment (annual contracts to suppliers)
 -spare parts (likely in future)
 -salaries
 -electricity (low volume of samples received per week)
- Mills are used to visual assessment Test results or using other instruments (example, Shirley analyzer instrument for trash / leaf)

Way forward

- Address future marketing of the laboratory to increase capacity utilization to above 50% during operations (installed capacity 700 samples/day)
- Adopt 100% bale classification inline with National quality assessment regulations [Cotton (General) Regulations, 2014]
- Projected income and expenditure to be done to determine daily logical target for the lab to break-even hence the actual cost of testing 1 sample
- Intensive capacity building of actors along the chain (production – Textiles)

THANK YOU FOR YOUR ATTENTION

ASANTENI SANA