



CONSTRAINTS AND ADVANTAGES OF INSTRUMENTAL COTTON CLASSING IN WEST AFRICA, THE CASE OF BURKINA FASO

I. Introduction

The cotton value chain has been marked by advances in high-capacity instrument testing technology. Instrumental characterization of cotton quality has met with mixed approval in West Africa. However, faced with an increasingly demanding world market, this equipment provides an opportunity to optimize production quality for a more competitive offering. In BURKINA FASO, what are the advantages and constraints of this cotton classing methodology?

II. Instrumental cotton testing on high capacity instruments in West Africa, case of Burkina Faso

1. The introduction of high capacity instrument testing of cotton in West Africa

The introduction of the first high capacity instrument testing to initiate cotton instrumental classification in West Africa, dates from 1991 to 2006. This impetus was reinforced by the contribution of the project « Commercial standardization of instrument testing of cotton for the cotton producing developing countries in africa », (CFC/ICAC/33) from 01/06/2007 to 30/06/2011.

2. The cotton classification by high capacity instrument in BURKINA FASO

The optimum use of instrumental classification in Burkina Faso is based on the CFC/ICAC/33. After acquiring its first instrument testing in 1991, SOFITEX took this project as a starting point in 2010, when it built a laboratory in line with standards, accredited since 2013 to the present day, to ISO/CEI 17025 v 2017.

3. Advantages of cotton classification on high capacity instruments in BURKINA FASO

The instrumental classification appears to be a continuation of the quality optimization approach opted for by SOFITEX through its efforts in varietal selection, technical itineraries and ginning.

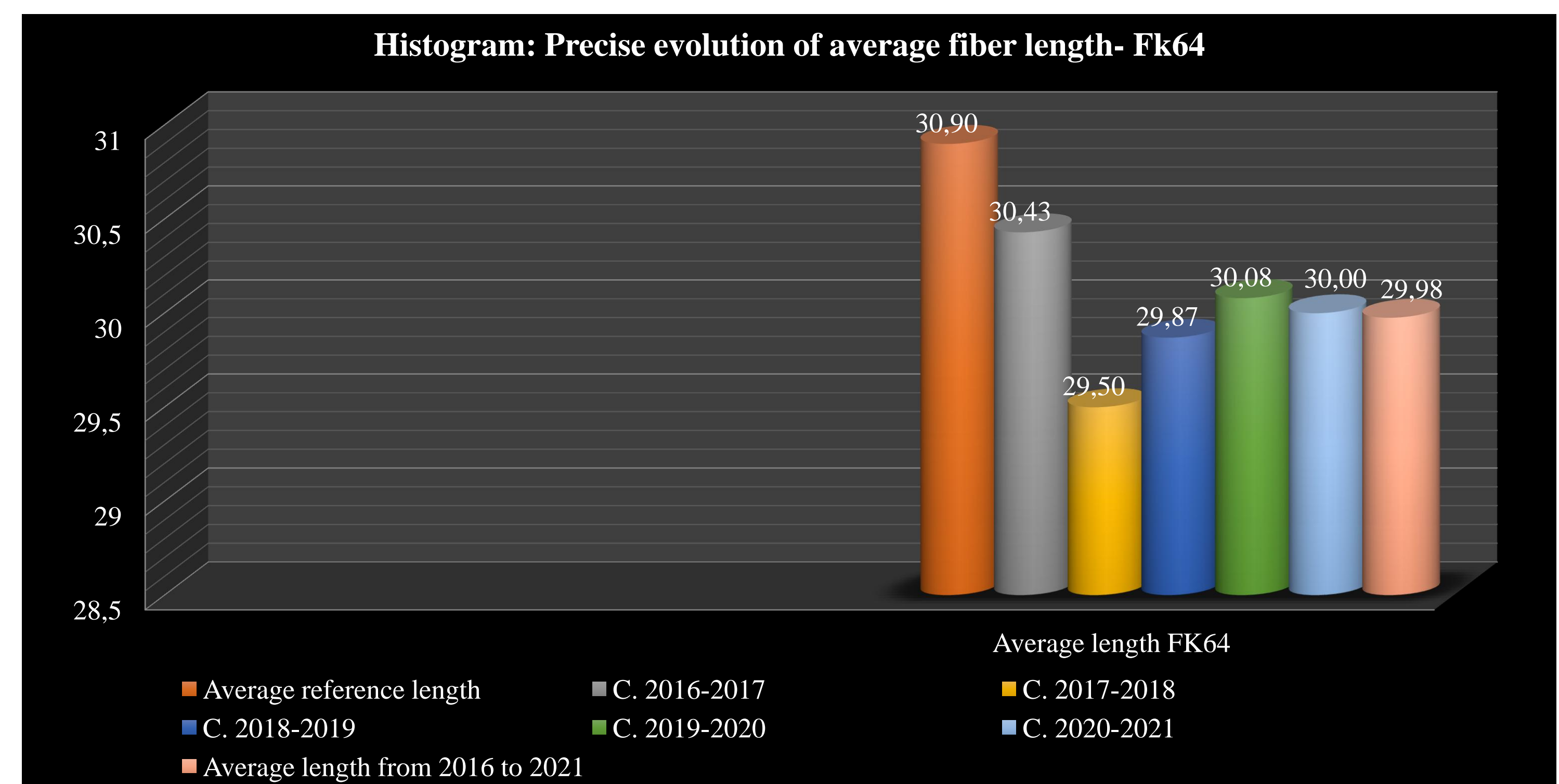
✓ Advantages linked to the potential of the production system

- Instrumental classing laboratory accredited for over 10 years to ISO/IEC 17025 v 2017
- The laboratory's contribution to varietal selection research since 2011
- Optimization of the ginning process, with quality monitoring based on results for each factory
- Regular participation in internationally approved tests (CSITC RT; USDA)

- Ability to obtain several technological fiber parameters (MIC; UI; strength, etc.)
- Ability to supply cotton to the market with reliable information about its quality

Cotton Fiber Technology Laboratory		FORM ANALYSIS REPORT					
SOFITEX lab module tests		N°01					
Référence		Indice				Campagne	
HVI device results - 2018 à 2021							
VARIETY FK 64: MIC distribution en %							
Campaigns	Moy MIC	≤ 3,5]3,5 ; 3,6]]3,6 ; 4,2]]4,2 ; 4,8]	≥ 4,9	Distribution sum
2018-2019	4,3	0,0	0,0	33,2	66,4	0,4	100,0
2019-2020	4,2	0,0	1,0	42,0	56,7	0,3	100,0
2020-2021	4,3	0,0	0,1	34,0	65,6	0,3	100,0
Average	4,3	0,0	0,4	36,4	62,9	0,3	100,0

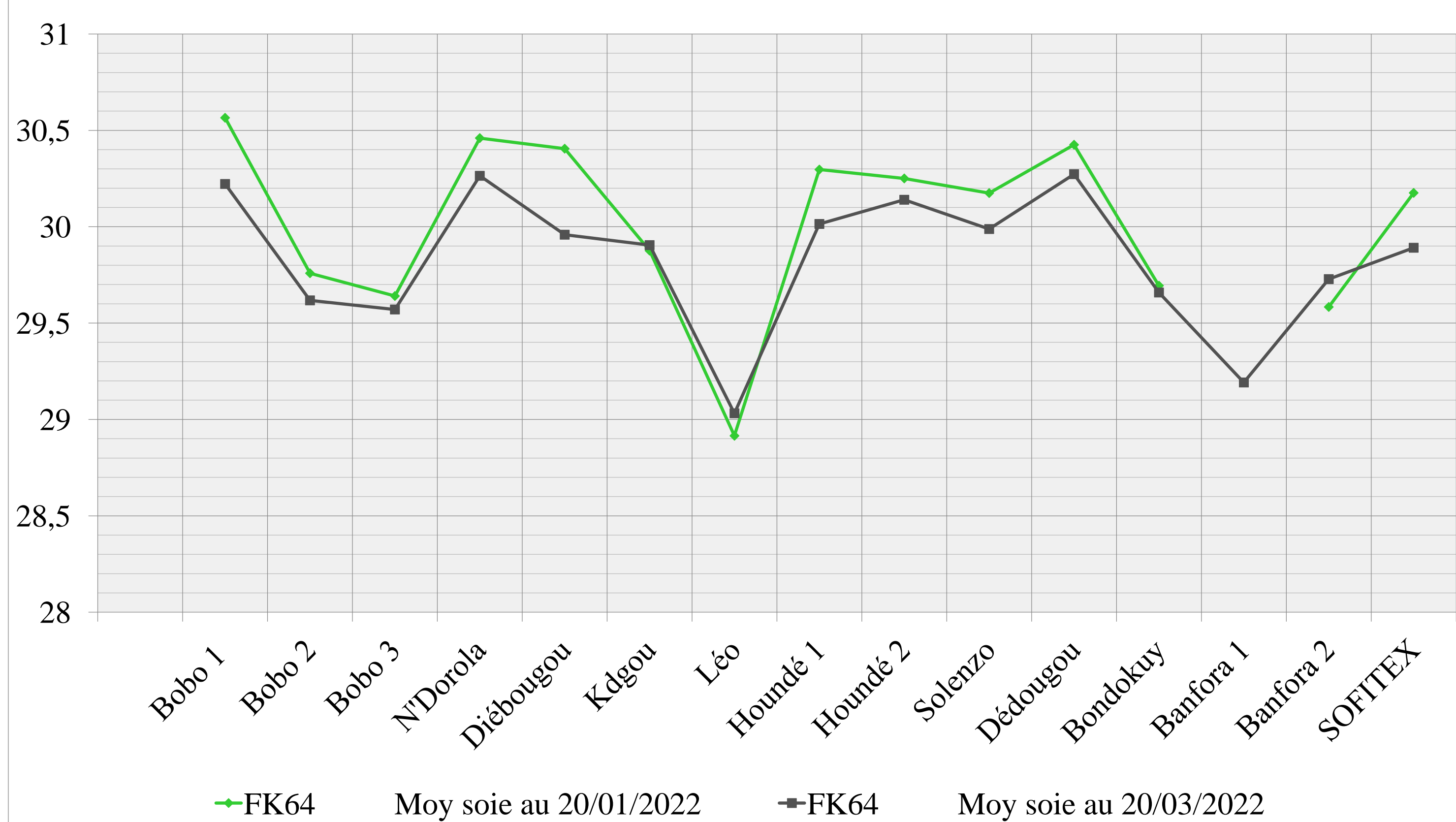
- Production of precise trends in average fibre length by variety



4. Constraints of cotton classification on high capacity instrument in BURKINA FASO

- Difficult paradigm shift
- Low production of forward-looking studies
- Lack of skills training for human resources
- The adoption of technological innovations is not accompanied by appropriate training
- ✓ **Infrastructure and équipements constraints**
 - The adoption of this classification requires compliance with standard requirements relating to infrastructure and equipment.
 - The cost of high-capacity equipment for cotton testing is more expensive for a country like Burkina Faso, which has no maritime outlet.
- ✓ **Best practices constraints**
 - Ensuring appropriate preventive and corrective maintenances of cotton instrument testing
 - Develop a methodology for efficient sampling of cotton bales at the factory
- ✓ **Constraints related to standards, methods, references materials and standards**
 - Instrumental testing requires the adoption of standard procedures and methods. It is important to be familiar with them and to know how to use them:
 - Have reference standard documents
 - Have standards and reference materials available (Coton standard / USDA)
 - Ensure traceability of calibrated equipment used

FK64-Comparative curves for the average length of cotton fiber between two periods



✓ Competitive advantages on the world cotton market

- A better characterization and distribution of fibers lengths by ginning factory
- Ability to sell cotton fiber at fair value
- Ability to better get quality criteria on the world cotton market
- Prospects of access to diversified markets
- Reliability of Coton's offering

Cotton Fiber Technology Laboratory		FORM ANALYSIS REPORT										
Testing of SOFITEX Laboratory modules		N°01										
Référence		Indice									Campagne 2019-2020	
HVI device results cumulative campaign to 30/04/2020												
VARIETY FK 64 : Fiber length distribution in %												
Provenance	Average fiber length	≤ 1 1/16	1 3/32	Current average lengths (%)	1 1/8	1 5/32	1 3/16	1 7/32	1 1/4	≥ 1 9/32	Upper medium lengths (%)	
Bobo 1	30,42	0,0	1,0	1,0	3,9	24,1	32,6	28,2	9,4	0,9	99,0	
Bobo 2	29,93	0,7	2,1	2,8	8,4	35,9	37,4	14,6	0,9	0,1	97,2	
Bobo 3	29,85	0,2	1,9	2,0	9,1	44,3	31,5	11,9	1,1	0,0	98,0	
DRC BOBO	30,06	0,4	1,8	2,2	7,2	33,7	35,2	18,1	3,3	0,3	97,8	
Kourouma	29,35	0,0	4,8	4,8	14,3	71,4	9,5	0,0	0,0	0,0	95,2	
N'Dorola	0,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
DRC N'DOROLA	29,35	0,0	4,8	4,8	14,3	71,4	9,5	0,0	0,0	0,0	95,2	
DRC DIEBOUGOU	30,23	0,0	0,6	0,6	4,0	28,9	40,3	22,8	3,3	0,1	99,4	
Koudougou	29,66	0,2	3,8	4,0	13,8	43,6	29,3	8,6	0,7	0,0	96,0	
Léo	29,27	0,0	0,0	0,0	22,2	77,8	0,0	0,0	0,0	0,0	100,0	
DRC KOUDOUGOU	29,65	0,2	3,7	4,0	14,0	44,3	28,7	8,4	0,7	0,0	96,0	
Houndé 1	30,16	0,1	0,5	0,6	4,5	32,9	39,0	20,4	2,5	0,1	99,4	
Houndé 2	30,29	0,0	0,5	0,5	2,3	27,4	43,2	21,8	4,3	0,3	99,5	
DRC HOUNDE	30,22	0,0	0,5	0,6	3,5	30,4	40,9	21,0	3,3	0,2	99,4	
DRC SOLENZO	29,61	0,7	6,1	6,7	19,7	39,9	20,0	9,4	3,6	0,7	93,3	
Dédougou	30,28	0,0	0,0	0,0	1,4	33,6	40,7	19,2	5,1	0,1	100,0	
Bondoukuy	29,73	0,1	2,4	2,5	13,1	46,0	29,7	7,4	1,1	0,3	97,5	
DRC DEDOUGOU	29,95	0,2	2,3	2,6	9,5	38,3	32,1	13,6	3,7	0,3	97,4	
Banfora 1	28,66	0,0	16,7	16,7	66,7	16,7	0,0	0,0	0,0	0,0	83,3	
Banfora 2	0,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
DRC BANFORA	28,66	0,0	16,7	16,7	66,7	16,7	0,0	0,0	0,0	0,0	83,3	
SOFITEX	30,08	0,2	1,5	1,7	6,7	33,9	36,2	17,9	3,3	0,3	98,3	

Chef de Section Laboratoire de T C / A J KABORE

III. Prospects and conclusion

The enthusiasm of the major cotton-producing countries for instrumental classification could justify the need for the cotton sectors in West Africa to give more thought to the reasoned adoption of this classification method. In view of the performances achieved by certain West African countries, such as Burkina Faso, we can attest to the capacity of our cotton sectors to succeed in this innovation. Such a challenge would require a strong will on the part of decision-makers and the support of stakeholders, backed up by a change in paradigms, following a reasoned approach.

Bibliographical of references

- Anselme J. KABORE, 2018. Communication on topic « Instrumental classification: Constraints and advantages for the cotton sectors ». A.C.A workshop seminar held at Bobo-Dioulasso/BURKINA FASO from 24 to 27/07/2018.
- Guideline for Standardized Instrument Testing of Cotton (ICAC Task Force on Commercial Standardization of Instrument Testing of Cotton (CSITC) and ITMF International Committee on Cotton Testing Methods (ICCTM))- Date of issue: V3.0 – March 19, 2018.
- Project CFC/ICAC/33 from 01/06/2007 to 30/06/2011 « Commercial Standardization of Instrument Testing of Cotton for the Cotton Producing Developing Countries in Africa. »
- International trade center UNCTAD/WTO _Cotton Exporter's Guide Geneva:ITC,2007.xxvii,334p.(Product and market development)