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 Research Article

## ENHANCEMENT OF COTTON QUALITY PROCESSING AND PACKING IN NIGERIA

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### ABSTRACT

This paper focus on the enhancement of a cotton quality processing and packages in Nigeria ,Cotton as a natural commmodity is differentiated by quality parameters based on universal standards that are widely agreed upon and accepted by world cotton trade and consumers. Infact international cotton contracts are based on such standards with defaulters penalised under arbitration. These paraneters are valued differently, depending on domestic conditions, local attitude, intended use of final product and technology in use. Actually, there is direct correlation between specific attributes of cotton lint (constituting about 50% input requirement of the spinners) and the higher the quality of the yarn.

### KEYWORDS

Cotton, Quality , Processing , Enhancement , Packing , Nigeria.

### INTRODUCTION

Within the last on and half decades, Nigerian textile industry has witnessed my raid of problems. Ranging from epileptic supply of

power, non-availability of black oil at economic price, to dumping of textile fabries and fairly used clothes. This crisis manifested itself in winding

fortune in the sector, with most mills closing shops while others, very few, curtailing production and constraining local demand of cotton lint. The effect of this problem on the cotton industry cannot be over emphasized. As cotton represent a major input to spinning mills, the cotton glut created by the wide supply-demand gap resulted in serious losses, to both cotton farmers and merchants. Some of the major player have since abandoned the business while quite a number are still battling with bank loans and accrued interest.

With the forgoing development, export of cotton lint because very vital, to maintain cotton production and survival of the ginning industry. This however came at a time, when the average quality of Nigerian cotton was deteriorating due to lack of sustained government programme on cotton while international requirement on quality was on the rise. In spite of that however, emphasis was successfully shifted to foreign markets, but at a cost, to the Nigerian exporters, due to the said low quality attributes of Nigerian cotton that necessitated discounted price and lower margin.

### **Cotton Quality Attributes**

A great revolution was recently achieved in cotton quality assessment with the emergence of high

volume instrument (HVI) in determining fibre properties of cotton under a more accurate method against the previous subjective hand classing, with its human error of judgment. This instrument is being installed by the federal ministry of commerce at IAR, Zaria.

On the other hand, emerging technology in spinning, is placing higher and sever technical demand in cotton fibres thereby raising importance of many fibre properties. For the benefit of this presentation, we will discuss those properties relevant to the usual requirement of our mills, as follows:

### **Micronaire**

This is the resistance to air flow through a sample of cotton fibre of fixed mass and volume and is an indication of fibre fineness. It is generally called micronaire value. It is mainly influenced by maturity of the fibre.

### **Maturity**

Cotton fibres are tubular with wall thickness that increased with maturity. Immaturity favours the creation of neps and affects dyeing. Due to the desperation of some Nigerian farmers and

merchants, seed cotton is occasionally picked from the farm before maturity.

### **Cotton Purity**

The greatest attribute of cotton is its purcand natural quality-attributes easily degraded by contamination at every step, from the farmers, pickers, buyers to the ginnery. With Nigerian non regard for quality, there has always been the tendency of contaminating seed cotton with leaves, decayed seed cotton, flowers. Sticks, weeds, immature balls trash, dust and polypropylene impurities from polypropylene bags packaging. Furthermore, farmers do intentionally add water, pick seed cotton before dew dry up, store seed cotton on was soil, insert block in seedcotton bags and mix sand with seed cotton, all with a view to gaining weigh. With all these contaminants originating with the seedcotton brought to the ginnery, nigerian ginneries have their fair share of the problem as manifested in increasing processing cost, increased gins wear and tear and reduced yield of cotton linta and cottonseed.

At the ginnery level, contaminants emerge as the result of polypropylene bags sewed with poly twine that are usually cut and dorpped into the

seedcotton, instead of removing them neatly. Further more due to lack of awareness or non-segregation of seedcotton at the point of purchase, cotton of different variety is mixed up. Contaminated cotton is steaky, creates obstruction in ginning and requires extra efforts of cleaning process tha unnecessarily inflate processing cost.

The textile industry, the prime end user of the white gold is so worried about cotton contamination.

The gimers are equally distrucked by the high cost of production and meager margin that results in occasional loss. If contamination does not come free for const either. An element of cost has to be incurred at every stage of cotton planting, harvesting, handling, pre-ginning, ginning, post-ginning, packagine, stocking and transportation to the mills.

### **STRENGTH**

This expresses the force required to break a bundle of the cotton fibres. It is mainly determined by the variety of the seed input and ranges from weak, intermediate, average, strong and very strong.

The stronger the fibre, the stronger the resulting yarn and better the quality.

### **Elongation**

The ultimate tensile strength of cotton is the force required to stretch it to its breaking point and the breaking extension is the elongation of the cotton lint.

### **Colour**

This refers to the colour, cleanliness and style of the cotton i.e the visible factors. The combination of cottonseed input variety, cotton lint exposure to sunlight, condition of temperature and humidity primarily determine the colour of cotton lint. Additionally, inadequate control of pests and diseases due to lack of government serious commitment, has seriously been causing cotton stains on seed cotton while in storage and transportation has been causing cotton stains on international colour standard ranges cotton colours from dead white, bright white, creamy white and creamy. The whiter the cotton, the better the quality.

### **Fibre**

**Staple length:** This is essentially genetically inherited character of the cottonseed variety. It is

defined as the length of a typical portion of the fibre. However weather, nutrient deficiency, excessive cleaning and excessive drying ginning, may also cut short, the fibre length. This attribute is measured in inches and fractions thereof and the longer the fibre, the higher the quality of the cotton and the longer the resulting yarn. Nigerian cotton is genetically of short staple even though of recent, longer staple variety is being introduced in the southern part of the country.

**Uniformity:** This reflects the homogeneity of the lint in quality, staple length, fineness and maturity, depending on the requirement of the spinner. Achievement of uniformity has been a difficult task in Nigerian cotton industry as different variety of seed input remains in use in the same location resulting in different types of cotton lint even in a single bale.

### **Achieving Quality Standards**

The order of importance of cotton quality feature varies with the requirement of the spinner. Furthermore, while some of the features are inherited from the seed variety that produces the cotton, others are acquired from the farms through the ginneries to the spinning mills. Care must therefore be taken in careful cotton picking,

packaging, transportation, storing, ginning and forwarding the resulting cotton lint to the spinning mills under conditions that would not tamper with its natural features as well as achieve other cotton quality characters. While nothing can be done to change the natural acquired feature of cotton, Nigerian cotton quality can be greatly improved with the elimination of its excess impurities and humidity. This is more worrisome as the contaminants originate from seedcotton being brought to the ginnery remain pure and packaged in cotton cloth, the resulting lint is bound to maintain its natural features and meet other required attributes of purity. This is buttressed by the fact that, the ginner wrapping and ensure non oil leakages in the ginning process that occasionally contaminate the lint, for a good premium and wider market.

Thus the quality of cotton lint depends on the quality of seed cotton brought for ginning. The major problem of Nigerian cotton is its high degree of man made contamination brought about by attitude to cheat (reap what you have not sown) an polypropylene packaging system. There is a limit to the cleaning capacity of the ginners in view of which poly contaminants find their way through the gins only to manifest in

spinning mills. This problem is already causing unwarranted gap between the nation cotton output and spinners cotton lint requirement. White spinners are in dear need of poly-free contaminated cotton lint input, Nigerian cotton merchants and ginners are having large stock of cotton lint that could not be sold.

### **Seed Companies;**

- Maintenance of genetic purity of the seed variety developed above
- Preventing of physical deterioration of seed variety at all stages of multiplication
- Delinting and grading of seed before planting

### **Cotton planting and management;**

- Demarcation of single variety planning zone
- Appropriate pesticide strategy to avoid pest and resistance
- Timely planting and harvesting
- Packaging in cotton bags
- Good storage system

### **Ginning**

- Manual removal of impurities
- Effective ginner maintenance



- Avoiding the temptation of excess humidification with a view to gaining weight.
- Weighing scale effectiveness and achievement of universal density size and weight of bales.
- Cotton cloth wrapping of bales

### Marketing

- Establishment of organized marketing system of seed cotton via the re-introduction of buying centers
- Effective inspection of federal produce inspection service (EPIS)
- Quality premium for seed cotton and cotton lint and rejection of contaminated cotton.
- Better understanding between ginners and textiles mills.
- Setting up of acceptable quality standards by spinning mills in conjunction with ginners
- Installation of HVI equipment in zaria as promised by the federal ministry of commerce.

It is my humble opinion that, with the foregoing, Nigerian cotton quality would witness great

improvement with resulting premium prices at both local and international markets.

### CONCLUSION

We have in this paper recognized the importance of finance in all stages of the export cycle and that practically all countries have diverse systems for the provision of such finance.

The paper has equally shown that NEXIM is currency active in the provision of finance, trade information and advisory services, as well as risk bearing facilities. It is the intention of NEXIM bank to continue to use its facilities to reinforce other policies/incentives targeted at the export sector for a sustainable export culture in Nigeria.

We believe that a forum such as this provides opportunities for problems discussion, ideas sharing and strategy formulations and the national economy in general.

In conclusion, let me restate that the export potentials of this country, particularly in the textile/cotton industry are far from being even barely tapped. Though, one is happy to note that there is a better awareness today's than a few year ago, thanks to the concerns of the federal government, various private sector institution,

and the strengthening of institutional support to the sector.

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