

PRODUCED LOW COST AND SUFFICIENT QUALITY DYED YARNS FROM BLENDING SOME EGYPTIAN COTTON VARIETIES AND GRADES WITH COMBED COTTON WASTE

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ABSTRACT

This investigation provides a new method for produced dyed yarns of low cost and sufficient quality to be used for garment manufacture using some Egyptian cotton varieties of different grades and consequently different Maturity percentages in combination with combed cotton waste in different ratios in open end (O.E) spinning process. In this study we tried to find facilities looking to upgrade the disposal comber noils into medium dyed yarns. We succeeded in choosing Giza 88 cultivar combing noils to blend with both Giza 80 and Giza 90 as a long Upper Egypt cultivars which described as coarse and short as compared with the other Egyptian cultivars and their creamy color similar to the combed waste. Measurements of fiber maturity percentage, Fiber and yarn properties, dye ability, and color difference properties of the produced blends were studied. The results obtained revealed that the best values for all the fiber and yarn characters considered that open end was the favorable system for this investigation. The results show that the micronair reading, hair weight (H.W), upper half mean, uniformity index, color strength (K/S) and color difference showed decrease as the ratio of the cotton varieties decreased.

INTRODUCTION

Egyptian cotton is known for its superiority and high quality. Egypt produces 50% of the world's production of long and extra long staple cotton. However, Egypt have many problems in its cotton production due to control of exports of Egyptian cotton lint from the early sixties to the late eighties. Egyptian mills depended on the Egyptian cotton as its source of raw material and Egyptian farmers depended on the government-run textile industry as its client.

The control of environmental pollution is very essential to establish healthy working atmosphere in and around textile industries. Textile wastes could be also utilize for manufacturing of certain products.

The demand for cotton fiber has increased in the recent years. The cotton mills all over the world needed to find ways to reduce the disposal cotton wastes and upgrade it as a saleable products or additive values. This considered as an indicator to reduce the cost of the produced garments. The properties of the Egyptian cotton varieties are the highest among the other cottons around the world, especially extra- long and extra fine cotton, so, the price of these varieties are very expensive and lead to high price of produced garments.

Ashour *et al*, (1991) found that the coarse and medium yarns produced from high quality Egyptian cottons may not be economical due to the high cost of the raw material. They added that the combing wastes were longer, uniform, strong and fine than the other wastes.