

1 **A Study on Constraints Faced by the Farmers in Adoption**  
2 **and Marketing of Extra Long Staple Cotton Production**  
3 **Technology**

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6 **ABSTRACT**

7 The present study was conducted to analyse the constraints faced by the farmers in the  
8 adoption and marketing of ELS cotton production technology. The study was taken up in two  
9 blocks of Vellore district namely, Tirupattur and Kandhili blocks of Tamil Nadu. The sample  
10 size of 132 cotton growers was drawn on proportionate random sample method. The data  
11 were collected using a well-structured interview schedule and data were analysed using  
12 appropriate statistical analysis. The study revealed that less than two-thirds (62.87%) of the  
13 respondents faced the problem of labour crisis followed by a transportation problem  
14 (57.57%).

15 **Keywords:** Constraints; Adoption; Marketing behaviour, Suggestions.

16 **INTRODUCTION**

17 Agriculture continues to be the most effective sector of our economy, as about 70.00  
18 per cent of the population is engaged in agriculture and allied activities for their livelihood.  
19 Agriculture is not only an essential occupation of the people but also the way of life, culture  
20 and custom. Agriculture provides the principal means of livelihood for over 60 per cent of  
21 India's population.

22 Cotton is considered as "white gold" among the cultivated crops on account its  
23 importance in agricultural and industrial sectors. Cotton occupies a prominent position in the  
24 Indian economy. It is the primary raw material for the vast domestic textile industry and  
25 makes a substantial contribution to the country's foreign exchange earnings. Cotton is the  
26 backbone of the textile industry, which consumes 59.00 per cent of the country's total fibre  
27 production.

28           The term 'Extra Long Staple' (ELS) cotton typically denotes a cotton fibre of  
29 extraordinary fibre length. The recognised industry standard for the minimum fibre length of  
30 an ELS fibre is 34.925 mm. This minimum length is significantly longer than traditional  
31 varieties of cotton, known as upland cotton, where the staple length is average of 26-27 mm.  
32 Along with the fibre length, ELS cotton is also recognised for their superior strength and  
33 better uniformity.

34           However, even with all the benefits of the ELS fibre characteristics and its apparent  
35 desirability, it is grown only in limited quantities. ELS and LS (Long Staple) cotton represent  
36 only about 3.00 per cent of the entire world's cotton production. The ELS cotton varieties are  
37 specific in their needs to produce a successful crop. ELS cotton tends to be very vigorous  
38 plants and if not managed will grow to be large plants with minimal fibre production.  
39 Environmental conditions for ELS cotton are specific; they can be produced only in the  
40 limited areas that suit the plant's needs for hot days and cold nights. All of these factors result  
41 in higher production costs, with increased risks compared to upland cotton. This, in turn, is a  
42 major limiting factor for the production of ELS cotton.

43           With this background, the present study was designed and entitled “Constraints Faced  
44 by the Farmers in Adoption and Marketing of ELS Cotton Production Technology. The  
45 primary objective of this study is to find out the constraints faced by the cotton growers and  
46 to suggest suitable strategies.

## 47 **METHODOLOGY**

48           The study was taken up in two blocks of Vellore district namely, Tirupattur and  
49 Kandhili blocks. Four villages from the two blocks namely- Madapalli, Ponngulam,  
50 Udayamputhur and Sevvathur with a sample size of 132 farmers were selected.  
51 The data were collected using a well-structured interview schedule, and data were analysed  
52 using appropriate statistical analysis.

## 53 **FINDINGS AND DISCUSSION**

### 54 *Constraints faced by cotton growers*

55           A significant task of extension service is to get modern and improved technologies  
56 adopted by the client system, the farmers. Farmers however sometimes find difficult to

57 continue the use of enhanced practices recommended. Hence the constraint analysis is  
58 becoming one of the essential components of extensive research.

59 The constraints were asked through open-ended questions. The collected constraints were  
60 analysed and tabulated with the help of percentage analysis.

61 **Labour crisis:** the labour crisis is a major issue which affects the overall production of  
62 cotton. Due to scarcity of labour and lack of skilled farmers, the global cultivation and  
63 harvesting of long staple cotton crop decrease.

64 **Difficulty in picking the bolls:** Under rainfed situation picking up cotton bolls are difficult.  
65 The best time to collect bolls is during pleasant seasons like summer mornings or in winter.

66 **Pests and diseases in cotton:** Despite sufficient awareness, the practice of IPM is not carried  
67 out in several cotton fields. Cotton leaf curl virus (CLCuV) is one of the significant biotic  
68 constraints which affects the production of crops. Lack of knowledge among farmers, or may  
69 be due to availability and standard bioagents degrades the overall output.

70 **Price fluctuations:** In the last 200 years or so cotton prices have seen sharp spikes probably  
71 four or five times. This is another most significant constraint affecting the production.  
72 Constant lowering and hiking of price affect the output.

73 **Involvement of middlemen:** Intermediaries plays a significant role in the marketing. Both  
74 the consumers and producers gain immensely from the roles of intermediaries, who ensures  
75 that there is a seamless flow of goods in and also the availability of crop. Unavailability of  
76 proficient middlemen pauses the marketing of crops which on simultaneously decreases the  
77 production.

78 **Partial payment:** Static payments always slowdowns the overall output of the production.  
79 Proper payments from the management are always needed to balance the harvesting process.

80 **Transportation problem:** Transportation and transport cost plays the key role in recognising  
81 the link between accessibility and agricultural development. Proficient transport system is  
82 necessary to assure a proper balance between agriculture and marketing.

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84 **Table 1. Constraints faced by cotton growers in the adoption of ELS cotton production**  
85 **technologies**

86 (n=132)\*

S.No.	Constraints	Number	Per cent	Rank
1	Labour crisis	83	62.87	I

S.No.	Constraints	Number	Per cent	Rank
2	Difficulty in picking the bolls	56	42.42	III
3	Pests and diseases in cotton	45	34.09	IV
4	Price fluctuations	33	25.00	V
5	Involvement of middlemen	22	16.66	VIII
6	Partial payment	30	24.24	VI
7	Transportation problem	76	57.57	II
8	Bolls don't burst well	28	21.21	VII

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**\*Multiple responses obtained**

88 From the above Table 1 it was observed that less than two-thirds (62.87%) of the respondents  
89 faced labour problem while cultivation and harvesting followed by transportation problem  
90 (57.57%), difficulty in picking those bolls (42.42%), pests and disease infestation in cotton  
91 (34.09%), price fluctuations (25.00%), partial payment (24.24%), bolls don't burst well  
92 (21.21%) and involvement of middlemen (16.66%).

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94 ***Suggestions to overcome the constraints***

95 Suggestions offered by the farmers should serve as an eye-opener to those persons who adopt  
96 the recommended technologies. So, probable implications were encountered to overcome the  
97 limitations faced by the cotton growers and presented in Table 2.

98 **Table 2. Suggestions to overcome the constraints**

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**(n=132)\***

S.No.	Suggestions	Number	Per cent
1	Creating awareness on cotton technologies through organising more training programmes	42	31.81
2	Price stabilisation	38	28.78
3	Involvement of middlemen should be avoided	20	15.15
4	Full payment can be credited	35	26.51
5	Vehicles can be provided by the government officials	67	50.75

6	Viable pest and disease resistant hybrids may be introduced	22	16.66
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**\*Multiple responses obtained**

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The above Table 2 shows suitable suggestions to the farmers who are facing the constraints. About half (50.75%) of the respondents gave suggestions that vehicles can be provided by government officials followed by to create awareness on cotton technologies through training programmes (31.81%), price stabilization (28.78%), full payment can be credited (26.51%), viable pests and disease resistant hybrids may be introduced (16.66%) and involvement of middlemen should be avoided (15.15%).

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## **CONCLUSION**

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The study revealed that majority of them faced the problem of labour crisis, transportation problem and pests and disease attack. The study indicated new agricultural machinery may be popularised among farmers and farmers must be trained in handling those implements to overcome the problem of labour scarcity. Further viable pests and disease resistant hybrids can be introduced to reduce the loss caused by pests and disease incidences. The government officials can provide a vehicle for transportation.

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