



## A study on yield gap in cotton cultivation

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### ABSTRACT

An attempt was made to study the yield gap in cotton in Perambalur district of Tamil Nadu state. Three hundred respondents were selected based on the proportionate random sampling method. A well structured and pre-tested interview schedule was administered for the collection of relevant data. The results revealed that 42.00 per cent of cotton growers had medium level of yield gap. The socio-economic and psychological characteristics namely, education, area under cotton cultivation, information source utilization, risk orientation, innovativeness and economic motivation were found to have positive association with yield gap.

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### INTRODUCTION

Cotton is the most vital crop of commerce, popularly known as 'white gold'. Cotton accounts for nearly 44 per cent of the world's fibre and supplies 10 per cent of the world's edible oil. Even though India ranks first in cotton area in the world, it has third position in production after China and the United Nation due to lower productivity. Hybrids give almost twice the yield of varieties and better quality, especially long and extra long staples. The production and productivity of cotton enhanced due to this hybrid revolution, however, India's productivity (440 kg lint/ha) is still far below the world average of 682 kg lint/ha (Khadi, 2006).

The adoption of a new technology often results in a tendency of variability in the production. Before releasing a variety to the farmers for adoption, it is tested under different agro-climatic conditions at research stations through trials and demonstrations. However, yield levels realised by the farmers tend to be considerably lower than those recorded at the research stations and demonstration plots, leaving a considerable untapped yield potential (Gaddi *et al.*, 2002). Keeping the above in

mind, the study was attempted with the following objectives: to estimate the potential yield and actual yield in cotton and to identify the yield gap at the level of farmers holding and to study the socio-economic and psychological profile of the cotton growers on their yields gap.

### METHODOLOGY

For the present study, yield gap was defined as the difference between the highest yield recorded at the selected villages and actual yield obtained by the respondents and expressed as percentage of the total.

The study was taken up in Perambalur district of Tamil Nadu because it was one of the potential districts for cotton cultivation especially under rainfed conditions. Based on the maximum area under cotton, six villages were selected. From the six villages, 300 cotton growers were selected as a sample size by proportionate random sampling. The data were collected from the respondents with the help of a well structured and pre-tested interview schedule.

### Key words :

Yield gap,  
Potential yield,  
Actual yield,  
Cotton growers

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