

# European Journal of Biotechnology and Bioscience

Available online at [www.biotechjournal.info](http://www.biotechjournal.info)

ISSN 2321-9122  
EJBB 2013; 1(2): 100-102  
Received 20-7-2013  
Accepted: 24-8-2013

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## A study on adoption behaviour of senna growers

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### ABSTRACT

Dindigul and Tuticorin have suitable agro-climatic conditions for cultivation of medicinal plants. There is a need to take up a systematic approach towards cultivation of medicinal plants to provide a consistent supply of medicinal plant produce of international quality. The farmer in his day to day business uses a wide range of resourced. Within this view, the present paper has been taken up with the adoption of senna technologies. In view of this, Dindigul district was selected purposively for the analysis of production and marketing of senna. The purposive sampling technique was used to select one block in the Dindigul district. The extent of adoption of senna cultivation practices by the respondents nine major senna cultivation practices were selected in consultation with the extension officials, researchers and based on the available literature. More than fifty per cent of the respondents had medium level of adoption followed nearly one-third of the respondent who had high level of adoption.

**Keywords:** Senna, respondents, adoption level

### Introduction

Tamil Nadu, situated at the southern tip of India is blessed with diverse ecological habitats, which harbour and sustain immense plant diversity with a total area under medicinal and aromatic plants of about 7000 ha. It not only ranks first in the production of senna, but also produces superior quality periwinkle and gloriosa products in the world.

Senna, periwinkle and ashwagandha are grown more in Tirunelveli and Ramanathapuram districts, whereas glory lily, ashwagandha and Coleus are found in Salem, Namakkal, Madurai and Dindigul districts. Dindigul and Tuticorin has suitable agro-climatic conditions for cultivation of medicinal plants. There is a need to take up a systematic approach towards cultivation of medicinal plants to provide a consistent supply of medicinal plant produce of international quality. Glorylily & senna is two of the medicinal plants widely cultivated by the farmers in the district. Knowledge are the important pre-requisites for adoption. Hence, it is imperative to study the adoption of glory lily recommended practices by the medicinal plant farmers in their cultivation. The farmer in his day to day business uses a wide range of resourced. With in this view, the present paper has been taken up with the adoption of senna technologies.

### Methodology

Dindigul district was selected purposively for conducting the survey with respect to glory lily. The senna is mainly cultivated in Dindigul district of Tamil Nadu. The Dindigul district has larger area under commercial cultivation of senna and is expanding the area in the recent years. Because of this process, the buyers from all over India have established their purchasing counters in this area. In view of this, Dindigul district was selected purposively for the analysis of production and marketing of senna.

The purposive sampling technique was used to select one block in the Dindigul district. The extent of adoption of senna cultivation practices by the respondents nine major senna cultivation practices were selected in consultation with the extension officials, researchers and based on the available literature. The each respondent was asked about his adoption or non-adoption against each item. The respondents were also asked to mention the reasons for non-adoption. A score of two was given for adoption and non-adoption was given one score. The

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scores for all these items were added-up for each respondent and his adoption score was arrived at. The adoption index was followed in this study.

$$\text{Adoption index} = \frac{\text{Respondent's total}}{\text{Total possible score}} \times 100$$

Percentage analysis was also worked out to study the practice wise adoption of medicinal plant growers.

### Findings and Discussion

The results on distribution of respondents according to their overall adoption of recommended Senna technologies are presented in Table 1.

**Table 1:** Distribution of respondents according to their overall adoption of Senna technologies (n = 100)

S. No	Category	Number	Per cent
1.	Low	18	18.00
2.	Medium	56	56.00
3.	High	26	26.00
	Total	100	100.00

It could be seen from Table 1, that more than fifty per cent of the respondents had (56.00 per cent) medium level of adoption followed by more than one – fourth of the respondents who had high level of adoption and 18.00 per cent of the respondents who had low level of adoption. This might be due to the fact that most of the Senna cultivating farmers were having adequate knowledge and high level of risk taking capacity would have resulted in better adoption. This finding is in line with the findings of Jeyaseelan (2005) [2].

### Practice wise adoption of recommended technologies by the Senna growers.

The results obtained on adoption of recommended technologies in Senna cultivation are presented in Table 2.

**Table 2:** Practice wise adoption of recommended technologies by the Senna cultivation (n=100)

S. No	Technologies	Number	Per cent
I	Land preparation	100	100.00
II	Seeds and sowing	90	90.00
III	Manures and fertilizers	80	80.00
IV	Weed management	50	50.00
V	Plant protection	75	75.00
VI	Harvest	100	100.00
	Mean Percentage		82.50

It could be observed from Table 2, that cent per cent of the respondents adopted the recommended harvesting techniques (100.00 per cent) and land preparation (100.00 per cent) followed by seeds and sowing (90.00 per cent), manures and fertilizer (80.00 per cent) plant protection (75.00 per cent) and weed management (50.00 per cent). In this study area, farmers generally did not allow flowering, and therefore the leaves were the only economic part to be sold in the market. Hence, the mean percentage score was also found to be more than eighty per cent (82.50 per cent).

### Land preparation

It could be ascertained from Table 2, that cent per cent of the Senna growers adopted land preparation. The probable reason might be due to enough knowledge in these operations in addition to more traditional nature. The finding on the involvement of respondents in land preparation is in agreement with the findings of Jeyaseelan (2005) [2].

### Seeds and sowing

From the results in table 2, it could be stated that ninety per cent of the respondents (90.00 per cent) had adopted seeds and sowing. This is the base of any crop cultivation so the respondents had adequate knowledge and were knowing the importance of the technologies.

### Manures and fertilizer

It could be seen from the table 2, that more than three – fourths of the respondents (80.00 per cent) had adopted manures and fertilizer. The application of manures and fertilizer are one of the vital parts in the cultivation of Senna. This finding is in line with the findings of Sudhakar (2007) [4].

### Weed management

From the results in table 2, it could be stated that fifty per cent of the respondents adopted weed management. In Senna cultivation, generally the farmers did not allow flowering, before flowering stage they are harvested the crop. So they did not give much importance for weed management. This finding is in agreement with the findings of Bharathi (2003).

### Plant protection

The percentage on adoption of plant protection was found to be 75.00 per cent. The respondents having adequate knowledge and also knew the role of chemical in protection of plants from pest and diseases. And another possible reason was high yield depending on plant protection measures. This finding is in line with the findings of Jeyaseelan (2005) [2].

### Harvest

Cent per cent of the respondents had adopted the recommended harvesting techniques. This might be due to fact that farmers strongly believed that proper harvesting technique would have increased the yield gradually.

### Conclusion

The overall adoption of recommended practices of Senna had medium level of adoption followed by high level of adoption. In practice wise cultivation practices of Senna technologies, cent per cent of the respondents were adopted in land preparation and harvest followed by seeds and sowing (90.00 per cent), manures and fertilizer (80.00 per cent), plant protection (75.00 per cent) and weed management (50.00 per cent).

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