

## Subhash's Cotton Triumph: SPLAT Technology Triumphs Over PBW

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### Background

Shri. Subhash Vithoji from Annigeri village of Dharwad District owns 6.00 acres of rainfed land with deep black soil. He was growing cotton, greengram and bengalgram crops with an annual income of Rs. 3,31,000/-. He used to practice conventional methods for cultivation and management of pests in crops. During 2021-22, the cotton crop was severely infested with pink bollworm with the reduction in yield upto 60%. During this time, he visited KVK in search of suitable management practices for pink bollworm.

### Interventions

#### Process

KVK Scientists visited the cotton field of Shri Vithoji conducted group discussion and suggested suitable management practices for the control of pink bollworm (PBW). The cotton growers were also involved during this process. During 2022-23, the KVK Scientists implemented FLD on Mating Disruption Control (SPLAT) for the Pink Bollworm in Cotton in his field and made timely visits and guided in plant protection measures to control insect pests in cotton. Trainings were also conducted in the village emphasizing on morphological characters of pink bollworm, life cycle, damaging symptoms and management practices. Farmers were taken to Ginning Mill at Annigeri to orient regarding source of spreading pink bollworm even after harvest and farmers were suggested not to keep the cotton stubbles in the field after harvesting of cotton.

### Technology

KVK Scientists made timely visit, guided the farmers and implemented the SPLAT technology

when cotton was at 60 days after sowing. The Specialized Pheromone and Lure Application Technology (SPLAT) is a ready to use paste formulation, maximum interval between the application (30-35 days), no toxic effect on farmer. This technology is specific to pink bollworm and disruption of the life cycle prior to egg deposition. Hence, there is no issue of pests developing resistance. It's safe to environment and bio-degradable. Due the treatment of SPLAT on cotton crops, noticed that lower damage of rosette flower (9.31%), Locule Damage (9.52%), Green boll damage (8.23%) over farmers practice i.e. 21.53%, 23.6% and 26.12% respectively. The increased yield was observed in SPLAT treated field (22.20 q/ha) as compared with farmers practice (16.97 q/ha).

### Output and outcome

#### Impact

#### Horizontal Spread

He adopted IPM practices to best of his knowledge to protect the crop from pests. The mating disruption technology helped to reduce the pink bollworm incidence upto 85-90% in FLD farmers field and the technology is also happily accepted by the fellow farmers of the village. During regular field visits and trainings, around 75 farmers participated and among them, 47 farmers adopted the technology (188 acres of cotton field) and 28 farmers have shown interest to adopt in upcoming season.



### Economic gains

The No. of insecticide sprays, costly insecticides and labour cost can be minimized by the adoption of Specialized Pheromone and Lure Application Technology (SPLAT) which led to lower cost of cultivation (Rs. 31,800/ha) resulting to higher net returns (Rs. 1,35,000/ha) with the BC ratio of 5.24

as compared to farmers practice (Rs. 92,300/ha) with the BC ratio of 3.64.

**Employment Generation:** Due to the adoption of technology the yield has increased and labour

requirement has also increased from 4 labours/acre to 8 labours/acre for 4 days. Mainly cotton is used in textile industry and indirectly contributes to the employment generation.

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