

## **Bumper production of cotton through Integrated Pest Management**

Name of the Farmer: Ajit Kumar Naik

Address: Village- Dahal, GP- Kandel, Block- Narla

Phone: 9777870404

Agro-climatic zone: western Undulating

Agro-Ecological situation: Black soil, high rainfall, medium elevation

### **Introduction:**

Cotton is a predominant cash crop grown in Kalahandi district of Orissa. Cotton cultivable area of the district is 55 thousand ha with average productivity of 16 q/ha. Due to favourable climatic condition and suitable soil type (Black cotton soil) cotton is widely grown by the farmers of this region. Mr. Ajit Kumar Naik resides in village Dahal of Narla block of Kalahandi district. He is 44 years old. His family consist of four members, his wife, one son and daughter. He depends upon Agriculture and he is the only earning member of his family. The farmer having 5.6 ha of cultivated land where primary source of income was agriculture and horticulture particularly from commodities like paddy, cotton, groundnut and vegetable. Cotton crops are massively cultivated in this village and farmers are very enthusiastic to cultivate cotton due to high marketing potential. He cultivates cotton in 1.6 ha land.

Heavy pest infestation and high cost of cultivation provides low return from cotton cultivation was the pressing problem of the growers of Dahal village. After gathering the information from the villagers about the serious problem of the crop, the experts from KVK discussed on importance of pest management to improve cotton yield was discussed by the KVK scientists. A skill development training programme on integrated crop management in cotton and one Demonstration on IPM Practices were demonstrated for the year 2016-17 and 2017 Kharif. Farmers were happy to get knowledge and started cotton cultivation as per guidance and technical support from KVK.

### **Initiative**

Capacity building through Training, FLD and other extension activities, Diagnostic visit of KVK Scientist time to time, Method demonstration all the package of practices, Distribution of extension literature on management practices of Cotton, Paddy, Groundnut and vegetable ATMA (Dept. of Agriculture) and Horticulture (under NHM), also extended their helping hand by providing frequent training programmes to update their knowledge level and Linkage with Department was facilitated for inputs and all Govt. supports.

### **Technology:**

#### **Demonstration on Integrated Pest Management Practices through**

- Growing castor and marigold as a trap crop.
- Sowing of Imidacloprid treated seed (5g/Kg of seed)
- Installation pheromone traps 20no.s/ha
- Application of HaNPV @500LE/ha and handpicking of harmful larvae.
- Neem pesticide for management of sucking pests and bollworm at early stage @ 2 lt/ha.
- Set up bird perches @ 20no.s/ha
- Plough deeply to expose resting pupae.
- Avoid excess use of Nitrogen fertilizers at the reproductive stage.
- Use 5% Neem seed kernel extract (NSKE) at 45 day after sowing.
- Topping cotton twigs at 90 days after sowing.

- Application of Indoxacarb 14.5 SC @ 250ml/ha

### **Key Result:**

Previously the farmer use to get cotton yield 12q/ha but now after practicing IPM & ICM the production has increased about 18q/ha. Now in the investment of Rs.25, 000/ha he could able to get a gross return of Rs. 86,400/ha and the B: C ratio comes around 3.4. Total annual income from paddy, Cotton, Groundnut and Vegetable is near about Rs.2, 74,840/- . Seeing the increase in the yield the other cotton growers are also interest to practice IPM & ICM in their field. Now not only he but the whole village is getting a bumper yield from cotton.

<b>Crop</b>	<b>Area (ha)</b>	<b>Yield (Q/ha)</b>	<b>Cost of cultivation (Rs./ha)</b>	<b>Total Gross income (Rs.)</b>	<b>Total Net Income (Rs.)</b>	<b>Total Income (Rs.)</b>
Paddy	3	38	20,000	1,59,600	99,600	99,600
Cotton	1.6	28.8	40,000	1,38,240	98,240	98,240
Groundnut	1	16	35,000	1,12,000	77,000	77,000
<b>Total (Rs.)</b>						<b>2,74,840/-</b>

### **View of the Farmers:**

As day by day there is a high demand of cotton and proper marketing channel of the produce motivates the cotton grower to engage more no of lands in cotton production. Integrated pest management play a major role in the increasing the yield of cotton. Seeing the tremendous increase in cotton yield the other cotton growers are also interested in IPM practices in their field.