

# Success Story on IPDM Practices in HDPS Cotton For Higher Profits

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## Details of the farmer

Name of the Farmers	:	Sri. V. Anand Reddy
Age	:	42 years
Village & Mandal	:	Parvathaypally & Tadoor
Land holdings	:	6 acres
Soil Type	:	Red chalka
Crop & acres	:	HDPS cotton : 5 acres. Paddy: 1 acre
Variety	:	Armitha
Farming experience	:	15 years

## Background/ existing problem

Cotton is an important commercial crop of Nagarkurnool district cultivating in an area of 1.42 lakh ha. However, the acreage and yields are getting reduced year after year due to many constraints viz., delayed monsoons, pests, and disease incidence. There is a need to adopt the new and feasible technologies to address the above issues. High density planting system (HDPS) is gaining popularity to increase cotton yield, this system is ideal for shallow to medium soils under rainfed conditions. In HDPS, the plant population will be increased to 29, 629 per acre by reducing the spacing to 90 X 15 cm. Adaption of HDPS in cotton is strongly recommended for farmers for sustainable cultivation of cotton crop. KVK, Palem in



collaboration with ICAR-CICR, Nagpur have introduced and demonstrated this new technology in various clusters of Nagarkurnool district over last two years, which is gaining importance in the district.

## Process and methods through which interventions by KVKs was made

KVK, Palem has demonstrated the technology through Front line Demonstration on Management of Pests and diseases management in HDPS cotton. Sri Anand Reddy Garu is one of the FLD farmers volunteered and motivated to implement the technologies provided.

## Types of interventions made by the KVK's to address the problem

### IPDM package

- Need based or intermittent spraying of Azadirachtin 1500 ppm @5ml or 5% NSKE with surf 1g or Sandovit 1ml per liter of water
- Installation of Yellow sticky traps @ 10/acre, Blue sticky traps @ 10/acre
- **Sucking Pest Complex:** Rotation of insecticidal sprays with different groups as following on need basis Fipronil 5% SC@ 2ml





or Sulfoxaflor 21.8% SC @ 1 g or Acetamiprid 20% SG @ 0.2 g or Thiamethoxam 25% WG @ 0.2 g or Imidacloprid 17.8% SL @ 0.25 ml or Flonicamid 50% WG @ 0.3 g or Diafenthiuron 50% WP @ 1.25 g per lit of water

- **Pink Boll Worm:** Collection and destruction of rosette flowers and installation of Pheromone traps @ 8/acre, if pheromone trap catches exceeds 8 per day for 3 consecutive days follow schedule of sprayings: profenophos @ 2 ml/lit or Thiodicarb @ 1.5 g/lit or Spinosad @ 0.3 ml/lit or Cypermethrin @ 1ml/lit or Lambda cyhalothrin @ 1ml/ lit
- **Wilts/Root rot/Charcoal rot:** Soil drenching with Copper oxychloride 50% WP @ 3g/lit water
- **Leaf Spots:** Foliar spraying of Propiconazole 25%EC @ 1ml/lit (anthracnose, myrothecium leaf spot, alternaria leaf spot, cercospora leaf spot) Metiram 55%+ Pyraclostrobin 5% WG@ 3g (or) Tebuconazole 50%+ Trifloxystrobin 25%WG @0.6g/ lit of water at 45, 60, and 75 DAS in endemic areas of grey mildew.
- **Bacterial blight, boll rot complex:** Foliar spray of Copper Oxychloride 50% WP 30 g/10 lit of water

## Inputs and Output process

KVK, Palem has provided technical support by timely advisories pertaining interventions of the technology and inputs for management of pests and

diseases viz., yellow sticky traps @ 10/acre, Blue sticky traps @ 10/acre, Azadirachtin 1500 ppm @ 1 lit, Thiamethoxam 25% WG @ 250g, Thiodicarb @ 200g, Copper Oxychloride 50% WP @ 100 g and Propiconazole 25%EC @ 500 ml. The output of the technology showed that farmer could able to manage the damage by the pests and diseases effectively which ultimately reflected in final yields.

## Outcomes and Impact of the intervention

- The results in the technology assessed fields (12.5 q/acre) indicated that there was drastic increase in yield when compared with the farmers practice (8.7 q/acre) with 43.6% of yield increase
- The beneficiaries could able to incur Rs. 17,960/- per ha over the FP with increased (2.28:1) B:C ratio
- In Demo fields the pests and diseases incidence has drastically been decreased with 3 reduced harmful sprays with which farmer can save Rs. 3,500/- on insecticides.



- After getting of good returns by following the IPM Practices, the beneficiary has initiated IPM practices in other agricultural and horticultural crops (Tomato, Chilli and fruit crops).
- The beneficiary is positive towards the new technologies disseminated by the KVK, Palem. He stood as a good example to the neighbourhood and other farming community

for adopting innovative technologies. He played a major role in disseminating the information on technologies and advisories to the neighbourhood villages

- Sri. Anand Reddy garu further, actively involved in mobilizing the farmers in organizing group meetings, exhibitions, and field days organized by the KVK, Palem

**Table 1: Yield Economics of HDPS demonstrated fields against normal planting system**

S. No	Operations	COC (Rs.)	
		Check	Demo
1	Land preparation	3,800	3,800
2	Seed cost	3,550	6,100
3	Fertilizers	5,800	5,800
4	Inter cultivation/weed management	4,800	5,600
5	Plant protection chemicals	5,200	4200
6	Herbicide application	1350	1500
7	Inter cultivation/ Hand weeding	4,800	5,600
8	Harvesting & Transport	5,600	8,400
9	Growth regulators (Mepiquat chloride)	0	1,200
10	Total Expenditure	28,750	35,300
11	Yield (q/ha)	8.7	12.5
12	Gross income @ Rs. 6,450/q	56,115	80,625
13	Net Income	27,365	45,325
14	Benefit cost ratio	1.95:1	2.28:1
15	Yield increase (%)		43.6
16	Additional net income (Rs. per acre)		17,960

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