



THREADS OF CHANGE: SUSTAINABLE SERICULTURE THROUGH ADOPTION OF INM & BIO-FERTILIZERS



Farmers Profile:

Name	: Bathini AAnjaiah
Address	: Lingala (v), Penpahda (M), Suryapet Dist. Telangana
Mobile Number	: 9553250722
Age	: 36
Educational Qualification	: Intermediate
Family size	: 04 Members
Land holding	: 5 Acres
Farming Experience	: 13 years
Crops Grown	: Mulberry, Paddy and Groundnut
Recognitions/Awards	: Best Sericulture Farmer Award from KVK

Introduction:

Mr. Bathini Anjaiah is a 36-year-old progressive farmer from Lingala Village, Penpahad Mandal, in Suryapet District, Telangana. He cultivates 2.5 acres of mulberry, 2 acres of paddy, and 0.5 acres of groundnut. With a focus on sericulture, he had been rearing silkworms and growing mulberry over several cycles each year. However, traditional practices posed multiple constraints to achieving sustainable productivity.

Challenges Faced by Farmer:

Despite his dedication and experience, Mr. Anjaiah encountered significant hurdles in mulberry cultivation and silkworm rearing, including:

- Low mulberry leaf yields due to inadequate and imbalanced nutrient management.
- Poor cocoon quality and quantity, primarily due to low moisture retention in leaves and limited organic inputs.
- High incidence of Grasserie disease in silkworms, especially during high-temperature months (February to April), affecting the last three batches annually.
- Overreliance on chemical fertilizers, including 3 bags of Ammonium, 3 bags of SSP, and 25 kg of MOP per acre per batch – leading to:
- Increased pest infestation (especially sucking pests),
- Higher costs of cultivation, and
- Soil health deterioration.

Intervention by KVK, Gaddipally

Recognizing the potential for sustainable transformation, SAIRD-KVK, Gaddipally implemented a demonstration project under: On-Farm Testing (OFT), and Front Line Demonstration (FLD)

Key components of the intervention included:

- Distribution and demonstration of liquid N:P:K biofertilizers for mulberry crop.
- Installation of rain gun systems in silkworm rearing sheds to maintain optimal leaf moisture and reduce dust contamination.
- Promotion of Integrated Nutrient Management (INM) practices to reduce chemical fertilizer usage and enhance soil health.

Results & Impact:

The interventions brought about significant improvements in both mulberry cultivation and cocoon production:

- Leaf quality & quantity increased by 10 per cent
- Zero incidence of Grasserie disease due to improved hygiene and leaf moisture
- Reduced use of chemical fertilizers:
- Ammonium reduced from 3 to 2 bags,
- SSP usage completely eliminated,
- Total fertilizer input reduced by 3 bags, resulting in Rs. 2,200 savings per batch

Lower pest incidence, reducing crop protection costs

Economic gain:

Parameter	Before Intervention	After Intervention
No. of DFLs	250	250
Cocoon Yield	135	157
Gross Income	73,971	86,100
Cost of Cultivation (₹)	13,757	11,557
Net Income (₹/batch)	60,214	74,543

Annual Income Analysis:

After the adoption of INM and OFT/FLD interventions, Mr. Anjaiah:

- Successfully completed 7 silkworm batches per year, earning a total of ₹6,02,700 from 2.5 acres of mulberry.
- Earned ₹90,000 from paddy (2 acres) and ₹30,000 from groundnut (0.5 acres).
- Total annual income: ₹7,22,700, which was a substantial improvement in his farm profitability.

Conclusion:

Mr. Bathini Anjaiah's transformation stands as an outstanding example of how scientific interventions, such as Integrated Nutrient Management, biofertilizers, and moisture conservation techniques, can revolutionize sericulture-based livelihoods.

The timely intervention and expert support from KVK Gaddipally in actualizing this success story serve as a catalyst, inspiring neighboring farmers to adopt more sustainable, profitable, and resilient sericulture practices.

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