

Pioneering Sustainable Agriculture for a Greener Tomorrow

Devarasetti Venkata Sai and Koppula Nithya Sree

College of Agriculture, Iroisemba, Central Agricultural University, Imphal

*Corresponding Author: devarasettivenkatasai@gmail.com

In the lush landscapes of Chinnappampalayam Village, situated in Coimbatore District, a remarkable transformation story of a farmer, Surendaran, is getting unfolded, whose unwavering dedication to sustainability has turned a 10-acre field into a thriving agricultural paradise. As we delve into the life and work of this visionary farmer, we uncover a remarkable journey that began with a single class and leading to an organic revolution that continues to inspire others and protect the environment.

A Visionary Unveiled

Our story was begun in 1993, when a single class led by an earthworm researcher named Sultan Ismail sparked a fire of curiosity and inspiration in a humble farmer from Chinnappampalayam. Little did he know that this class would sow the seeds of change that would later revolutionize his approach to farming. It was when that he heard of the wonders of organic farming for the first time and decided to embark on a path that less travelled.

Certified Organic

Fast forward to 2001, our farmer's commitment to organic farming had already begun bearing fruits. His tireless efforts and dedication earned him recognition from the Tamil Nadu Government, who officially certified him as an organic farmer. His journey was gaining momentum, but the best was yet to happen.

Inspired by Legends

In 2007, a turning point came when he attended a life-changing class on organic farming conducted by none other than Thiru. Nammalvar, widely regarded as the Father of Organic Farming. It was the day that shaped his destiny, filled him with new ideas and inspired him to take his farm to the next level. Armed with this newfound knowledge, he was set out to reshape his farm into an exemplar of sustainability.

A Symphony of Crops and Livestock

Today, our farmer's plot is an intricate blend of crops and livestock. At its heart lies a lush grove of

coconuts, their graceful fronds reaching towards the sky. Alongside them, the rich, dark leaves of cocoa plants cast their shade over the fertile soil. These two crops (coconuts and cocoa) dominate a significant portion of his farm's landscape.

But there's more to this landscape that meets the eye. Livestock, including milch cows and goats, coexist harmoniously with the crops. What sets this farm apart is the way in which everything is interconnected – a self-sustaining feeding cycle where nothing goes waste.

Water Management for Sustainability

In this journey towards sustainability, water management plays a pivotal role. The introduction of precision irrigation system (drip irrigation) helps minimize water usage and optimize its distribution. Additionally, a farm pond constructed under a government scheme ensures a consistent water supply, reducing dependency on external sources and supporting the farm's needs.

Challenges along the Way

The road to sustainable farming was not without its challenges. The overuse of inorganic fertilizers had taken its toll on soil health, a common problem among many farmers, posing a long-term threat to agriculture. Hybrid crops, while potentially high yielding, demanded substantial inputs and investments, adding financial pressure to an already challenging situation. And then there was the ever-present concern of labour shortages due to rural-to-urban migration, with labourers demanding higher wages, further squeezing the farmer's resources.

Innovative Solutions to Age-old Challenges

This farmer, however, is not one to back down from a challenge. He met these hurdles head-on, ingeniously integrating various components into his farming practices to overcome these difficulties:

- Beekeeping, Panchagavya & Jeevamirtha preparation and a Gobar gas units have all found a place on this forward-thinking farm.

- A bio-decomposer unit handles farm waste, converting it into valuable resources.



Fig 1: The decomposer unit that reproduces valuable waste

- A Gobar gas unit produces enough gas for domestic use, eliminating the need for LPG gas cylinders since 2010.



Fig 2: Gobar gas unit

- A unique approach that combines gas slurry and urine; upon applying it to crop plants through drip irrigation, leads to impressive results.
- Panchagavya that serves as a versatile tool, doubling as a biopesticide and crop booster.
- Poultry droppings are cleverly integrated as a nitrogen source, thereby reducing the reliance on external nitrogenous fertilizers.

- Dairy farming is not merely a source of income; but it enhances soil quality, nutrient recycling and meets household energy needs.
- Beekeeping thrives on the farm, providing honey as well as contributing to pollination.
- Waste from the farm is recycled efficiently through vermicomposting.

Precision Management of Crops

Precision management extends to crops too. Meticulous attention is paid to the specific needs of each crop. Magnesium sulphate is applied when coconut leaves show signs of yellowing. For cocoa, only dried cow dung is used. Areca nut palms receive cow dung and muriate of potash. By aligning crop management with the specific needs of each plant, the farmer saves money and ensures optimal growth.

Bountiful Results

The results of these innovative practices are nothing short of spectacular:

- On average, the farm yields 140-150 coconuts per palm annually, each provides a stable income upon selling.
- Cocoa trees produce around 800g of dried beans per tree, fetching excellent prices.
- Animals are fed with farm-grown greens and homemade animal feed, substantially reducing the maintenance costs.
- Honeybee colonies yield around 850 grams to 1 kg of honey each, attracting buyers willing to pay premium prices.

Impact on the Environment

This sustainable approach isn't just about profits; it leaves a profound impact on the environment as well. There's been a significant increase in income, but more importantly, a substantial improvement in the quality of the environment due to the adoption of Integrated Farming Systems (IFS).

Lessons in Sustainability

The lessons learned on this remarkable journey encompass a range of crucial aspects:

- IFS enhances productivity, recycling of resources and reduces the dependency on external sources.
- This approach leads to a notable reduction in production costs, enhancing the efficiency of resource utilization.
- The diversification of crops reduces investment risks and promotes sustainability.
- This journey has resulted in increased income and an improved standard of living.

A Farmer's Reward

The story of this farmer serves as a testament to the rewards of hard work, determination and a deep

commitment to the environment. By choosing the path of sustainability, he has achieved not only personal success but also made a significant contribution to the land he holds dear.

And so, in the verdant fields of Chinnappampalayam Village, a farmer's journey continues, echoing a simple yet powerful truth: If you think that the thing, you're doing is right, one day, you will undoubtedly reap the benefits of your hard work. This farmer's story is living proof that a commitment to sustainability can truly bear fruits and enrich both the land and those who tend to it.

* * * * *