



**Biotica  
Research  
Today**

**Vol 2:10** <sup>1052</sup>  
**2020** <sup>1054</sup>

## One Inch Soil Boost Farmer's Income

**Ankit Kumar Keshari<sup>1</sup> and Debasish  
Pattnaik<sup>2\*</sup>**

<sup>1</sup>Faculty of Agriculture, Sri Sri University, Cuttack, Odisha  
(754 006), India

<sup>2</sup>Dept. of Plant Physiology, College of Agriculture, OUAT,  
Bhubaneswar, Odisha (751 003), India



### Corresponding Author

Debasish Pattanaik

e-mail: [debasishpattnaikag@gmail.com](mailto:debasishpattnaikag@gmail.com)

### Keywords

Agricultural marketing, Multi-storey cropping system, Multiple  
cropping, Organic farming

### Article History

Received in 14<sup>th</sup> October 2020

Received in revised form 22<sup>nd</sup> October 2020

Accepted in final form 23<sup>rd</sup> October 2020

E-mail: [bioticapublications@gmail.com](mailto:bioticapublications@gmail.com)

### How to cite this article?

Keshari and Pattnaik, 2020. One Inch Soil Boost  
Farmer's Income. Biotica Research Today 2(10): 1052-  
1054.

### Abstract

**P**roper marketing of agricultural produce is always beneficial for the farmers. But it comes with several challenges; a continuous increase in the cost of cultivation with a tremendous fluctuation in market price is one of the biggest reasons that adversely affect the income of the farmers. To overcome this issue, a pronged approach of modifying the cropping system as well as the quality of agricultural produces (Multi-storey cropping system + Organic farming) can be considered. By practicing a Multi-storey cropping system and Organic farming, farm productivity can be enhanced with a limited area by efficient utilization of available natural resources such as air, water, light, space, and nutrients. The introduction of the multi-storied cropping system in organic farming ensures the best combination of crop-tree intercropping with the production of healthy crops that enables farmers to earn regular income throughout the year, ultimately addresses the price fluctuation in the market.

### Introduction

**I**n the future, the availability of land for cultivation will be a major impendent due to the rapid increase in urbanization, and also there will be degradation of fertile land due to soil erosion with the rapid use of chemical inputs to increase the yield per unit area to feed the demand of people. Under this situation, effective utilization of the available land with the proper diversified cropping system for the production of field and horticultural crops is the only approach to achieve nutritional security for the growing population and sustainable income for the farmer community.

The introduction of a diversified cropping system along with organic farming into the traditional farming system could be one of the solutions to realize sustainable productivity and maximum income per unit area besides maintaining soil fertility by the recycling of natural resources. The multi-storied approach is an alternative farming system specifically for small and marginal farmers to provide greater economic return per unit area. This modern hybrid approach has been executed by an innovative farmer of Maharashtra.

The multi-storied cropping system is one kind of intercropping that ensures growing plants of different height in the same field at the same time. It is mostly practiced in orchards and plantation crops for maximum use of solar energy even under high planting density. It is the practice of different crops of varying heights, rooting patterns, and duration to cultivate together. The objective of this system of cropping is to utilize vertical space more effectively. In this system, the tallest components have foliage of strong light and high evaporative demand and shorter components with foliage requiring shade and or relatively high humidity. Whereas Multiple cropping is defined as the intensification of cropping in time and space

leading to growing two or more crops (field/ horticultural) on the same field in a year with the best utilization of the limited land area.

## Path Breaking Success of Farmer

It is a very well-known fact that the farmers of the Marathwada region in Maharashtra are suffering and continuously facing a tough situation of drought, unseasoned rain, hailstorm, and government apathy towards farmers and fallen prices of agricultural produce from the last few years. There are shreds of evidence that farmers are committing suicide due to financial distress, lack of timely help, crop failure, and poor prices for their crops. When many farmers are discarding themselves from farming due to such natural calamities and uncertainty in net income, the only person Shri Ajay Prakash Rao Jadhav has come forward to demonstrate sustainable organic farming. He is having only 10 acres of land in the village of 'Kheda' in Kannad tehsil of Aurangabad district devoted his life to new experiments in farming. Before going to start a new experiment in traditional farming first he studied the market infrastructure of his region to better understand the supply and demand of the agricultural produce in the local market.



Figure 1: Farmer Ajay Jadhav in his field

Based on his survey he got to know, in his locality people are unaware of the importance of organic produce, so the selling of organic produce in the local market may not be a profitable approach, so for getting a better price for his produce and to avoid losses due to middleman, he contacted with wholesalers. And there was a greater demand for organic produce from all wholesalers, so to produce the organic crops in bulk quantities, he developed a farmer association with the local farmers and shown the path of success by practicing organic farming with a cluster approach. Ajay Jadhav focused on using natural ways to enhance the quality of soil and cultivated crops by following diversified organic agriculture. This lessened the cost of the product and got a good price for organic produce.

## Organic Methodology

He started the new experiment of diversified organic farming in his 10 acres of land, where he divided the whole land into small patches to maintain the diversity of different crops. His primary objective was to utilize the limited available area to earn maximum output. In 5 acres of land he introduced multi-storied farming by growing different fruit crops (mango, guava, jackfruit, grapes, etc.), plantation crops (coconut, arecanut, etc.), spices, and some vegetable crops which yield in different seasons throughout the year that address the of price fluctuation in the market.



Figure 2: Organic Turmeric field of farmer Ajay Jadhav

On the other hand, in 2 acres of land, he cultivates more than 120 types of vegetables with two different species each for seed production to earn better income per unit land



Figure 3: Farmer Ajay Jadhav in his apiary

area. The remaining 3 acres of land is utilized for Apiculture, Poultry, and Dairy farming. There is a demand for quality

honey in the market, but Bee Venom which is a poisoning release from the body of honey bees while stinging that used in apitherapy (natural treatment of illness) and has a greater demand in the market than the honey *i.e.* Rs. 10,000.00 /gm. So, from the apiculture unit instead of collecting only honey, he uses an electrical stimulator to collect the bee venom produce from the honey bee. To enhance the soil health instead of using various chemicals Ajay Jadhav uses *Trichoderma*, *Verticillium*, *Paecilomyces*, and *Pseudomonas* as useful bacterial inoculums to enhance the soil.

By practicing diversified farming, he found that he was increasing the health of the soil and keeping nature and human health unharmed. He found the best way to enhance the health of soil and humans.

### Successful Marketing

**T**hough Ajay Jadhav succeeds in producing organic produce in bulk quantities but selling these organic produces was a big challenge for him. Generally, consumers are in search of low-price produce and avoid purchasing such organic produce by paying more. However, regular awareness could help him develop a better business through ICT networks. When people started eating hygienic organic food, they get good results from healthy eating. Seeing believes the neighbours of his customers have also started demanding the organic produce now for various health

reasons. By practicing diversified farming, he found that he was increasing the health of the soil and keeping nature and human health unharmed. He found the best way to enhance the health of the soil and humans. Now with the 10 acres of land Sri Ajay Jadhav is earning Rs. 19 lakhs per annum. Ajay Jadhav has become a real inspiration for the youth to empower in sustainable agricultural practices.

### Conclusion

**I**n our country, the majority of farmers belong to small and marginal categories. And most of the farmers cultivate seasonal crops. Hence after a certain time interval, they have the scope to earn. Organic diversified farming may be an alternate approach to earn whole round the year as well as there is less risk of complete crop failure.

### References

- Nimbolkar, P.K., 2016. Multi storied cropping system in horticulture-a sustainable land use approach. International Journal of Agriculture Sciences, ISSN, 0975-3710.
- Paudel, M.N., 2016. Multiple Cropping for Raising Productivity and Farm Income of Small Farmers. Journal of Nepal Agricultural Research Council, 2, 37-45.
- Ninawe, A., 2018. "Ajay Jadhav: A Success Story in Sustainable Organic Farming", SMEWORLD, January, pp. 20-21.