

## RESEARCH ARTICLE

# A comprehensive study on natural farming practices - Adoption and impact on crop yield and farmer's income

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### SUMMARY

Natural farming, also known as Zero Budget Natural Farming (ZBNF), has gained significant attention and debate among agricultural scientists, government officials, farmers, and various other groups involved in agriculture in India. There are two contrasting perspectives on this topic, with some scientists dismissing the philosophy of Natural Farming while proponents claim it to be a solution for the challenges faced by Indian agriculture, particularly for smallholder farmers. This study aims to address critical questions and gaps related to Natural Farming by investigating farmers' perceptions, the components of natural farming practices they follow, input use patterns, benefit-cost ratios, constraints in adoption, and suggestions for improvement. The study conducted with 150 farmers from Anakapalle and Visakhapatnam districts aimed to investigate the perceptions, components, input use patterns, constraints, and suggestions related to Natural Farming. The findings revealed that most of the farmers were middle-aged (65.34%) with secondary education (50.67%) and significant farming experience (20.00% above 30 years). The farmers perceived Zero Budget Natural Farming (ZBNF) as agriculture without external inputs and labour (94.67%), acknowledging its role in conserving beneficial insects (93.34%) and soil fertility (92.00%). Jeevamrutham (92.00%) and crop rotation (90.67%) were the most widely adopted components of ZBNF. When comparing costs and returns, ZBNF paddy and sugarcane farmers incurred 18.55% and 19.56% less expenditure, respectively, compared to non-ZBNF farmers. However, net profits were lower for ZBNF farmers. The constraints in adopting ZBNF practices included chemically contaminated neighbouring fields (58.92%), the absence of specific prices for organic products (36.14%), difficulty in convincing family members (56.40%), and the lengthy transition period (45.23%). These insights shed light on the status and challenges faced by farmers in implementing Natural Farming practices. In conclusion, this study provides valuable insights into farmers' perceptions, adoption of natural farming practices, costs and returns, and constraints faced in the adoption of ZBNF. These findings can inform policymakers, researchers, and farmers themselves in further developing and promoting sustainable agricultural practices in India.

**Key Words :** Natural farming, Smallholder farmers, Input use patterns

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**How to cite this article :** Uma Maheswara Rao, D., Tejeswara Rao, K., Pradeep Kumar, P. B. and Jagannadha Rao P. V. K. (2023). A comprehensive study on natural farming practices - Adoption and impact on crop yield and farmer's income. *Internat. J. Plant Sci.*, **18** (2): 147-153, DOI: 10.15740/HAS/IJPS/18.2/147-153, Copyright@ 2023:Hind Agri-Horticultural Society.

**Article chronicle :** Received : 21.03.2023; Revised : 24.05.2023; Accepted : 16.06.2023