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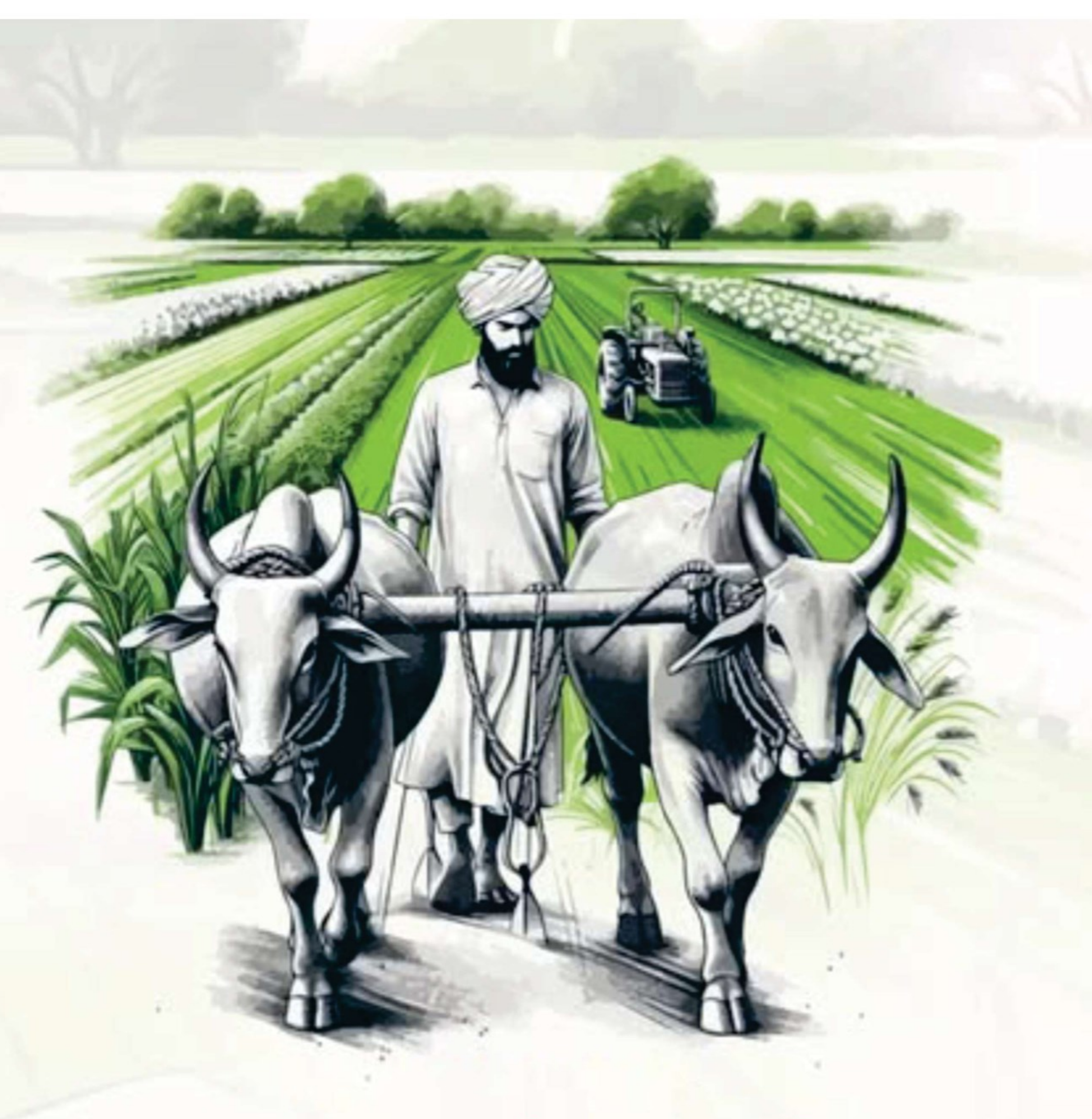


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Dr. Maya Bisen • Mr. Sanjay Yadav  
Dr. Vikas Singh • Dr. Satendra Kumar  
Kunwar Akhand Pratap Singh

Essentials of Agriculture



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**Dr. Maya Bisen • Mr. Sanjay Yadav  
Dr. Vikas Singh • Dr. Satendra Kumar  
Kunwar Akhand Pratap Singh**

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# *Chapter 17*

## **Farm Production Economics and Resource Use Efficiency**

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### **Abstract**

Farm production economics is concerned with how farmers organize and manage scarce resources to produce agricultural output in the most efficient and profitable manner. In a world where land, water, labour, capital and energy are increasingly limited, the question is no longer only how much to produce, but how efficiently production can be carried out. Resource use efficiency lies at the heart of farm production economics, as it directly influences farm income, sustainability and long-term viability of agricultural systems. This chapter presents a comprehensive academic discussion on farm production economics and resource use efficiency, focusing on economic principles, production relationships, input–output analysis, cost structures, decision-making processes and efficiency measurement at the farm level. It also explores practical dimensions such as technology adoption, risk and uncertainty, labour and capital use and environmental considerations.

**Keywords:** Farm production economics, resource use efficiency, input–output relationship, cost analysis, farm management, productivity, sustainability, decision-making, agricultural efficiency.