

Agricultural Technology

Commercialisation and Incubation

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Preface

Agricultural development increasingly depends not only on the generation of new technologies but also on their effective assessment, protection, transfer, commercialisation, scaling and adoption. Research institutions, agricultural universities, entrepreneurs, start-ups, extension systems and private enterprises generate a wide range of innovations; however, many promising technologies fail to reach their intended users because of gaps in intellectual property management, technology valuation, licensing, business development, incubation, financing and market linkage. Understanding the pathway from research and innovation to practical application is therefore essential for strengthening agricultural innovation systems.

Agricultural Technology Commercialisation and Incubation has been prepared to provide a comprehensive and systematic understanding of this pathway. The book begins with the fundamentals of technology and innovation and the distinctive nature of agricultural technologies. It subsequently examines technology transfer and commercialisation, intellectual property rights, systems for protecting and managing intellectual property, and the protection and commercialisation of biological resources, grassroots innovations and traditional knowledge. Special attention is also given to geographical indications, genetically modified organisms and biosafety within the broader framework of agricultural technology management.

The later chapters focus on the practical processes required to move technologies from research institutions to users and markets. These include technology assessment and refinement, technology valuation, commercialisation strategies, scaling up, licensing, identification and engagement of technology takers, entrepreneurship development, policy support and technology incubation. The book further discusses technology promotion, stakeholder engagement, technology scouting, open innovation and emerging approaches in technology commercialisation and incubation.

An important feature of the book is its emphasis on the agricultural context. Agricultural technologies operate within biological, environmental, economic, institutional and social systems and therefore cannot be commercialised through a purely technical approach. Successful technology deployment requires consideration of user needs, intellectual property protection, regulatory requirements, economic feasibility, market potential, institutional support, entrepreneurship, extension mechanisms and pathways for scaling. The book accordingly integrates these dimensions to provide readers with a

broad understanding of the agricultural innovation and commercialisation ecosystem.

The book is intended primarily for undergraduate and postgraduate students of agricultural sciences, agricultural extension, agribusiness management and related disciplines. It will also be useful to teachers, researchers, extension professionals, technology managers, entrepreneurs, start-up founders, incubation professionals and personnel associated with agricultural universities, research institutions and technology-transfer organisations. The chapter-wise summaries, key terms, examples, case illustrations and review questions have been incorporated to support both academic learning and practical understanding.

We hope that this book will help readers understand how agricultural knowledge and innovations can progress from research and invention to protection, refinement, commercialisation, entrepreneurship and large-scale application. More importantly, it is expected to encourage a professional and systematic approach to translating agricultural research into technologies, enterprises and services that create value for farmers, innovators, institutions and society.

Author

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Agricultural Technology

Commercialisation and Incubation

Agricultural Technology Commercialisation and Incubation provides a comprehensive and systematic understanding of the journey from agricultural research and innovation to practical application, enterprise development and large-scale adoption. The book covers fundamental concepts, technology transfer processes, intellectual property rights, valuation, commercialisation strategies, licensing, incubation, entrepreneurship, policy support and emerging approaches, with a strong focus on the agricultural context. It is designed to help students, researchers, extension professionals, entrepreneurs and policy stakeholders navigate the complex innovation ecosystem and translate agricultural knowledge into technologies, products, services and enterprises that create value for farmers and society.

Key Features



Covers technology generation, transfer, commercialisation and incubation in agriculture



Explains intellectual property rights, valuation and licensing in a practical manner



Discusses entrepreneurship, business models and scaling of agricultural technologies



Includes real-world examples, case illustrations and contemporary developments



Useful for students, researchers, extension professionals, entrepreneurs and policy stakeholders

