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## Sommario/riassunto

This handbook provides a holistic overview of different aspects of energy management in agriculture with an orientation to address the sustainable development goals. It covers possible applications not only from a technical point of view, but also from economic, financial, social, regulatory, and political viewpoints. Agriculture is one of the most imperative sectors that contribute to the economy across different agro-ecologies of the universe with energy inputs in each stage of production, from making and applying chemicals to fueling tractors that lay seeds and harvest crops to electricity for animal housing facilities. The majority of agricultural research has focused on the use of input, production, and productivity, whereas rational energy budgeting and use remain an overlooked and likely underestimated segment, ignored so far while formulating agro-ecosystem framework. Energy management study is a new frontier of agriculture and is challenging due to complex enterprises, spatial-temporal variability, exposure to pollution, and the predominant effect of the anthropogenic factor on ecology and environment. But it is worth taking the challenge considering the important prerequisite role of energy for sustainable development which has been evidenced from increasing research in recent times. Of recent origin, there are critical, in-depth studies around the globe assessing the capture and flow of energy in the ecosystem, which will help to develop a conceptual framework to incorporate this vital resource in the agriculture management template. This book is a state-of-the-art resource for a broad group of readers including a diversity of stakeholders and professionals in universities, public energy institutions, farmers and farming industry, public health and other relevant institutions, and the broader public as well.

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