

Book Review

Applied Agrometeorology

Founding President of The International Society for Agricultural Meteorology (cjstigter@usa.net)

Editor: Prof. Kees Stigter, Publisher: Springer, Heidelberg etc., 2010: xxxviii + 1101 pp.

ISBN 978-3-540-74698-0

The book on “**Applied Agrometeorology**” by **Prof. Kees Stigter** is a result of author’s 40 years of research, teaching and extension works on agrometeorology. He worked extensively on agriculture at the level of all stake holders in general and in the livelihoods of the farmers in particular across all continents. Contributions of more than 113 scientists are built together by the author for over three and half years. He explicitly suggested several weather/climate services in four parts of the book viz. Part-I: Introduction; Part-II: Operational agrometeorology; Part-III: Fields of application in agrometeorology and Part-IV: Basic science support system.

Applied agrometeorology deals with the conditions where the knowledge of weather/climate shall be applied to solve the agricultural problems using agrometeorological services, tools and components. However, the conditions enormously vary among regions, sub regions, farming systems, cropping systems etc. Therefore, the author started Part I with a much needed new and broad definition of the subject which is a well balanced one. In addition, the author’s creation “Conceptual and diagnostic framework: Information flow” was given in detail. This scheme proved successful to explain why special measures have to be taken to get the agrometeorological services through to farmers in developing countries. I am fortunate to write few peer reviewed articles on this scheme in its initial stages of introduction to the world of operational agrometeorologists by the author. The author provided further and enough information on initial and boundary conditions on this concept and issues. Also, syllabi on applied agrometeorology at Post Graduate level and for agrometeorological extension intermediaries are provided. This addition enriched the Part I and made a perfect link to other three parts and I consider Part I as the “**BODY**” of the book.

The operational applications of agrometeorological services are extensively covered in Part II. Starting with a brief

introduction it covered INSAM, CMA/CAU/APMP examples. The agrometeorological services are given the fairest treatment. Classical and scientifically inspiring examples of agrometeorological services are elaborately explained. These include sand settlements with local trees and grasses (Sudan); Irrigation advise (Cuba); Frost forecast (China); Intercropping for run-off (Kenya); Shelterbelts for hot and dry air (Nigeria); Straw mulch for improved soil moisture in winter (China); Umbrella shade trees for coffee quality (Tanzania); Shade trees for quality tea (India) etc. At the end of the chapter, inclusion of “Communication approaches in applied agrometeorology” is an innovative step in scientific writing. This part is the “**HEART**” of the book.

The “**SOUL**” of the book is Part III in which material has been collected for basic agrometeorology mentioned in Part I with the title “Fields of application of agrometeorology”. Applied agrometeorology of mono-cropping in the open; Applied agrometeorology of multiple cropping; Applied forest (Agro) meteorology; Applied agrometeorology of non-forest trees; Applied agrometeorology of other forms of agricultural production (animal husbandry; cropping under cover; urban agriculture) are given most appropriate application treatment. Under these five main components of the Part the sub components viz., strategic use of climate information, coping with climate variability and change, coping with extreme meteorological events, tactical decision making based on weather information, developing risk management strategies are explained extensively with “**ON-SITE**” examples.

The Part IV is “**SCIENTIFIC FACE**” of the book. The author detailed the methods as tools and approaches that belong to basic science support systems. Several topics are discussed thoroughly. They range from the old and still relevant to the most contemporary. A few most important of them are Concept of sustainability; Expert systems; Education, training and extension; Supporting evidence for green house gas mitigation; Modeling and simulation;

Monitoring and early warning; Remote sensing and Geoinformatics. The inspiring aspect in each topic is that each one is explained from the point of view of how these can be applied leading to agrometeorological services.

The author needs special appreciation for enhancing

the image of operational agrometeorologists like me. Should be on the list of all those who are interested to use “Weather and climate” as non- monetary inputs in all agricultural operations. This book must be made accessible to all the countries through appropriate dispatch mechanism by the publishers.

V.RADHA KRISHNA MURTHY
Professor (Academic)
ANGR Agricultural University,
Rajendranagar, Hyderabad 590030
India