

# **GLOBAL CLIMATE CHANGE AND AGRICULTURAL PRODUCTION**

**Javonte Mosciski**



# Global Climate Change and Agricultural Production

**Javonte Mosciski**

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## **White Press Academic**

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New Orleans, LA, US, 70130

*Global Climate Change and Agricultural Production*  
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ISBN : 978-1-79960-061-9

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### **Library of Congress Cataloging-in-Publication Data**

A catalog record for this book is available from the Library of Congress

For more information visit our website: [www.whitepressacademics.com](http://www.whitepressacademics.com)

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# GLOBAL CLIMATE CHANGE AND AGRICULTURAL PRODUCTION

Global climate change explains very briefly what has been happening to the world's climate and why and what is projected to happen in the future. Climate change refers to the variation in the earth's global climate or in regional climates over time. It describes changes in the variability or average state of the atmosphere over time scales ranging from decades to millions of years. Climate change is likely to contribute substantially to food insecurity in the future, by increasing food prices, and reducing food production. Food may become more expensive as climate change mitigation efforts increase energy prices. Climate is the primary determinant of agricultural productivity. Given the fundamental role of agriculture in human welfare, concern has been expressed by federal agencies and others regarding the potential effects of climate change on agricultural productivity. Interest in this issue has motivated a substantial body of research on climate change and agriculture over the past decade. Climatic conditions are of extraordinary importance for the existence of mankind, and the risks of climate change have long been recognised. Today, human activity is altering entire global systems, such as the atmosphere and the oceans, at an unprecedented rate. This book is intended to serve as a comprehensive resource for understanding global climate change, and its potential impacts on global ecosystem and its inhabitants. It is hoped that this book will encourage closer links and shared understanding among different academic disciplines so that they might work together more effectively to address the common problem of global change.

**Contents:** 1. Introduction, 2. Climate Change, Agriculture Production and Food Security, 3. Crop Modelling for Agriculture Production and Management, 4. Role of Biotechnology in Climate Resilient Agriculture, 5. Global Warming Impact on Rice Crop Productivity, 6. Climate Change Effect on Sugarcane Productivity, 7. Global Warming Impact on Crop Productivity, 8. Global Climate Change with Reference to Microorganisms in Soil-agriculture Ecosystem.

**Javonte Mosciski** studied biology at Ireland University, obtained his undergraduate degree. An Ireland government scholarship for postgraduate study allowed him to complete both his M.Sc. and Ph.D. at the University of Illinois at Urbana-Champaign. After two years as a Lecturer at Dublin University, he joined to an assistant professor position at the University of Belfast, rising through the ranks to professor, head of the department of plant biology and acting director of the School of Life Sciences. He is an energetic and dedicated teacher, who inspires a generation of young ecologists. His commitment to students is reflected in the tightly organized and effective lab group that is the hallmark of his leadership style. He has received many awards and honors, including election as a Fellow of Clare Hall of Cambridge University, the Ireland Association for the Advancement of Science, the Ireland Academy of Arts and Sciences and the Japan Society for the Promotion of Science. His long and productive career is recorded in numerous scientific papers, book chapters and books.

