



INSECTS AND THEIR ROLE IN FOOD SCIENCE

As Friend and Foe



Jamin Ali



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Jamin Ali
Keele University, UK





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Official organisation of PLANTICA

Madhur Vihar Phase-2, Lane No.-3

Ajabpur Khurd, Dehradun- 248001

Uttarakhand, India

Phone: +91 9548055290

E-mail: planticaddn@gmail.com **and** pgrindias@gmail.com

Website: www.pgrindias.in **and** www.plantica.in

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Preface

In spite of progressing towards a sustainable global food system it will be difficult to fulfil the food requirement of increasing world population. It is assumed that in next few decades global population will be over 9 billion by 2050. So It is required to produce more food than proportional to population growth, so that most humans get an adequate amount of food. Agriculture is one of the most important sources in achieving this goal, however agriculture production is directly based on insect-plant interactions that may be beneficial or harmful. Keeping all these things in mind I briefly explained the versatile nature of some important insects in this book. This book focuses the importance of insects that exist in both form such as beneficial insects and as a harmful pest. Beneficial insects increase global food production in a several ways such as by increasing chances of crop pollination, honey production and as a direct food (entomophagy). In contrast to beneficial insects, some insects are devastating agricultural pests, that cause a considerable loss to yield at both locations; field as well as at storage farm house. In occlusion, insects are an important creation that may be control and utilise to enhance global food production either by controlling the damage of crops or by enhancing beneficial insects to increase the rate of pollination and production of honey.I deeply acknowledge the enthusiastic motivation of my parents, collaborators, and friends without whose help this book would have only been a dream.

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Keele University, UK

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Insects and their Role in Food Science

About Author

Mr. Jamin Ali, Research Scholar at Keele University, UK. He has completed his Master's degree in Zoology (Entomology) from Aligarh Muslim University, India. He is applied insect chemical ecologist whose expertise lies at the interface of ecology, biology and chemistry. His research focuses on using insect and plant derived semiochemicals to develop novel tools for sustainable management of phytophagous insect pests in global agricultural environments. His general research interests focuses on exploiting the chemical ecology of tritrophic interactions to ensure global agriculture system can support an increasing human population. He is also interested in developing data-driven approaches to inform integrated pest management decision in horticultural production systems.

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