



## THE VALUE OF BIODIVERSITY, SOIL FERTILITY AND INSECT PEST CONTROL WITHIN AGROECOSYSTEMS – A SHORT REVIEW

SHRUTI PALIWAL<sup>1\*</sup> AND JINNAMU ARESH<sup>2</sup>

<sup>1</sup>Department of Genetics and Plant Breeding, Rajmata Vijayaraje Scindia  
Krishi Vishwavidyalaya, Gwalior, M.P.- 474001

<sup>2</sup>Department of Pomology and Post Harvest Technology, Uttar Banga  
Krishi Viswavidyalaya, Pundibari, W.B.- 736165

\*Corresponding author email: shruti1paliwal@gmail.com

**ABSTRACT:** The foundation of all human activity and life are ecosystems. Maintaining biological variety is critical to the ecosystem's health and the provision of ecosystem services. Agroecosystems that maintain high biodiversity are more economically and sustainably productive. Among the many benefits that agricultural biodiversity provides are crop pollination, biological crop protection, soil fertility and structure maintenance, erosion protection for soils, nutrient cycling, and distribution and flow management. Although the consequences of biodiversity loss might not be felt right away, they could make ecosystems more vulnerable to a variety of biotic and abiotic stressors. One of the challenges of contemporary sustainable agriculture is balancing the demands of social, environmental, and productive objectives with the preservation of biodiversity and the production of food profitably. As criticism mounts against the continued use of chemical pesticides, fertilizers, and water to boost yields and intensify production, global agriculture is searching for alternative biological and agrotechnical ways to satisfy the demands of food production worldwide.

**Keywords:** *Agroecosystem, biodiversity, conservation, ecosystem, management*

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### INTRODUCTION

Some have referred to agriculture as the world's greatest ecological experiment (Porter *et al.*, 2009; Sandhu *et al.*, 2015). According to recent predictions, the globe will require 25–70% more food by 2050 (Hunter *et al.*, 2017), yet there isn't any expectation to be a large increase in the

quantity of appropriate land availability (Godfray *et al.*, 2010; Sandhu *et al.*, 2015). However, these efforts must also address the socioeconomic and environmental issues that have emerged since "The Green Revolution" (Gaud, 1968; Tilman, 1999). The concept of "Sustainable Intensification" (SI), which may sound oxymoronic, is now being promoted. "A process or