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# In Silico Approach for Sustainable Agriculture

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An account of in-silico deployment and characterization of benign and pathogenic microbes for soil fertility.

A glimpse of utility of in-silico characteristics of microbial and plant genes.

Illustrative description of silico approaches deployed for sustenance of agriculture.

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## In Silico Study of the Geminiviruses Infecting Ornamental Plants

[Avinash Marwal](#), [Megha Mishra](#), [Rakesh Verma](#), [Rajneesh Prajapat](#) & [R. K. Gaur](#)

Chapter | [First Online: 24 July 2018](#)

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### Abstract

Over the past few decades, there has been more interest in Geminiviruses, especially Mastrevirus and Begomovirus, as many of the diseases they cause have now reached epidemic magnitude. Ornamental plants are widely distributed in India and across the globe having high environmental adaptability. Their farming forms a major branch of horticulture. At most of the places, crops stay in the field for a particular season, while different ornamental plants grow in or nearby these agricultural fields throughout the year. Ornamental plants serve as an alternative host for Geminiviruses in the absence of the main crops and considered as a source of new viruses or reservoirs of unidentified viruses which are often neglected during diversity studies. Ornamental plants may allow the spread and transmission of Geminiviruses back to crop plants when the cropping season returns, which enhances the host range of these viruses.

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