

A CASE STUDY

## Scope of genetically engineered predator and parasitoid

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### ABSTRACT

In order to reduce environmental contamination from chemical pesticides renewed emphasis has been placed on the development of effective bio-control agent for management of insect and mite pests. Genetic engineering can provide increased understanding of the biology and pathogenicity of the organism. Genetic engineering, also called genetic modification, is the direct human manipulation of an organism's genome using modern DNA technology. It involves the introduction of foreign DNA or synthetic genes into the organism of interest. Genetic engineering of arthropod natural enemies to improve their effectiveness as biological control agents requires the identification of beneficial traits, the cloning of genes that influence such traits, and the development of techniques for introducing these genes into the natural enemy species in such a way that they are appropriately expressed and stably transmitted to progeny. The genetic improvement of beneficial organisms can be approached from two different aspects *viz.*, increasing genetic diversity and artificial selective breeding. Different workers have carried out selective breeding procedures on beneficial organisms with some degree of success.

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