Cross-Fertilization Encyclopedia Article

Cross-Fertilization

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Cross-Fertilization

Cross-fertilization (also known as allogamy or exogamy)is the fusion of two sex cells (gametes) derived from two separate individuals of the same species. Examples are the mating between male and female in animals or the cross pollination of plants. The advantage of cross-fertilization is that it promotes the production of new genetic combinations within a population. This in turn leads to greater variation within the population, which gives it greater adaptive potential. As a mechanism of producing greater variation cross-fertilization is consequently a driving force of evolution.

There are a number of disadvantages to cross-fertilization, the two most major are the fact that two individuals of the same species need to be involved, and that desirable characteristics arising de novo in one individual can be rapidly diluted and eventually lost to the population. Due to the production of new genetic combinations mentioned above cross-fertilization is still a desirable trait. It allows organisms to evolve more rapidly and consequently aids in the spread of organisms and species into more and diverse habitats.