

An agricultural plot of land is sprayed with a very powerful insecticide to destroy harmful insects. Nevertheless, many of the same species of insect are present on the land the following year. How might the theory of evolution account for this phenomenon? You must appropriately use the following terms to receive full credit: **genetic variability, natural selection, reproductive fitness.**

## SOURCES OF VARIABILITY

1. **MUTATION**: CHANGES IN BASE SEQ.  
OF DNA

2. **CROSSING OVER**: DURING PROPHASE I

3.) **RANDOM ALIGNMENT**: METAPHASE I  
OF H-CHROMO.

4.) **RANDOM MATING**