A Mathematical Model for Solving Four Point Test Cross in Genetics

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Abstract

During meiosis cell division, chromosomes are replicated and form a tetrad. While the chromosomes are lined up close to one another, they have the opportunity to interact with one another, get tangled, and recombine to form new combinations of alleles. Four point cross refers to using 4 points (genes) to determine the order and distance between the genes. This test cross is also the method of choice in determining linkage in organisms with many genetic markers. In this paper an attempt is made to solve the four point test cross problem.

References

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Index Terms

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Keywords

Gene, Meiosis, crossing-over, linkage, recombination, three point test cross, four point test cross.