World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:10, No:06, 2016

Showing Broccoli and Cabbage Genotypes Biodiversity Using Randomly Amplified Polymorphic DNAs (RAPD)

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Abstract : Ten RAPD markers were used to detect the genetic variability and relationships among four broccoli and three cabbage genotypes. The results of RAPD analysis showed that all the five primers surveyed detected polymorphism for all broccoli genotypes. A total of 39 DNA bands were amplified by the 5 primers from all genotype and 21 of these fragments showed polymorphism (53.85%). The rest of these bands (46.15%) were common between the four genotypes. On the other hand, all of the 7 primers surveyed, used with cabbage, detected polymorphism among all cabbage genotype. A total of 69 DNA bands were amplified by the 7 primers from all genotypes and 23 of these fragments showed polymorphism (33.33%). The rest of these bands (66.67%) were common between the three genotypes. The investigation suggested that the RAPD approach showed considerable potential for identifying and discriminating broccoli and cabbage genotypes.

Keywords : Brassica oleracea, genotypes, genetic markers, varietal identification, DNA polymorphism, RAPD markers
Conference Title : ICFP 2016 : International Conference on Fertilization and Phytohormones
Conference Location : San Francisco, United States
Conference Dates : June 09-10, 2016