Abstract:

One of the problems of almond production is the issue of conveniet pollination assurance, due to self-incompatibility. Self-incompatibility causes the extreme alleviation in formation of fruit and as a result, it creats some problems in managment of almond gardens. Most varieties of almonds have gametophytic self-incompatibility, that is controlled by a genetic place with several type of alleles. The deterent insemination factor in this system is the deterrance growth pollen tube in style. In this study, in order to identify S allele in different genotypes were used from specific primer pairs such as AS1II-AmyC5R, ConF-ConR and Cebador2-Cebador8 in PCR as a control factor. Primers of AS1II-AmyC5R and Cebador2-Cebador8 constitued bands of 1200pb for S_f allele. Using primers S alleles S_1, S_2, S_3, S_{10}, S_{11}, S_{23} and S_{31} in samples of self-incompatibility were determined by use of primer pairs ConF-ConR. Known alleles S_1, S_2, S_3/S_f, $S_{5/10}$, S_{11}, S_{23} and S_{13} were identified by use of primer pairs AS1II-AmyC5R. The other bands that are derived from the production of PCR are related to self-incompatibility S allele, which maybe related to new incompatibility alleles.

Key words: : Prunus dulcis, Self-incompatibility, PCR, Molecular Markers

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Identification of self-compatibility and self-incompatibility in almond genotype (*Prunus dulcis* Mill.) by PCR-based markers

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