QUANTITATIVE AND QUALITATIVE EXPRESSION OF SELF - COMPATIBILITY IN ALMOND

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The evidence of almond self-pollinations through near a century has shown a high variability of fruit sets, ranging from nil, indicating self-incompatibility, to very high, reaching the level of a normal crop and confirming self-compatibility in these genotypes. All intermediate levels of fruit set were already found in the first study identifying self-compatibility by Almeida. However, most attention has been directed towards the qualitative presence of the S_f allele, especially after that this allele could be easily identified by specific primers after PCR in the lab, and not to this quantitative expression of self-compatibility, as measured in field trials. Recent findings have evidenced that the presence of the S_f gene is not the exclusive source of selfcompatibility in almond, arising as a consequence the question of modifier genes affecting its expression and reviving the previous suggestion that almond may be a selfincompatible species with a genetic background of pseudo-self-compatibility, as indicated by the small self set observed in some cultivars. Over this background, only one S_f allele could break the self-incompatible system, but probably interacting with this background of pseudo-self-compatibility where several minor genes could act to produce a quantitative expression of self-compatibility in almond.