

CLONING OF THE SELF-COMPATIBLE S^f LOCUS IN ALMOND

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Almond has a gametophytic self-incompatibility system as do most other fruit tree species in the genus *Prunus*. Although almond cultivars are largely self-incompatible, several self-compatible cultivars and lines exist. The S^f haplotype found in 'Tuono' has been a promising source for self-compatibility in many almond breeding programmes. DNA and protein markers for the S^f haplotype have been developed to be used for self-compatibility breeding in these programmes. However, although the DNA sequence for the pistil S (S^f -RNase) has been reported, the pollen S (SFB^f) sequence remains to be clarified. Furthermore, expression of S^f -RNase and of SFB^f has yet to be fully characterized. In this study, the S^f locus has been cloned and the expression of S^f -RNase and of SFB^f has been characterized. The molecular basis of self-compatibility observed with the S^f haplotype is discussed.