

DEVELOPMENT OF A LINKAGE MAP WITH SSR AND AFLP MARKERS IN AVOCADO

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Linkage maps are excellent tools in genetic studies and in plant breeding. Cosegregation analysis of a large number of molecular markers and characters of interest, allows studying in depth the genetic control of characters and the identification of molecular markers useful for early selection. In avocado, some molecular studies have been accomplished, leading to the development of some molecular markers and a first partial genetic map. Taking into account the available information, a more complete map has been developed, including previously published SSR markers together with new ones, as well as AFLP markers. This map will be applied in the search of markers linked to white root rot caused by the fungus *Rosellinia necatrix*. This disease implies a severe problem in the avocado growing region on the Spanish coast. For this reason, in the last years, a special effort has been concentrated in finding and selecting tolerant rootstocks. Because of the difficulty in obtaining controlled crosses, a half-sib population has been used as base population, obtained from a local Spanish genotype which transmits high tolerance levels towards its progeny. Following the pseudo-testcross strategy, the 12 avocado chromosomes have been represented. Results are discussed as part of the mapping strategy followed and the application in the selection programme.