

WP 6.1 STUDY OF THE GENETICS OF FRUIT QUALITY AND HEALTH PROPERTIES

Leader	IRTA (Institut de Recerca i Tecnologia Agroalimentàries)-Pere Arús
Other participants	INRA (Institut National de la Recherche Agronomique)-France. WUR-PRI (Wageningen UR-Plant Research International)-Netherlands ; UNIBO-DCA (Alma Mater Studiorum Universita di Bologna)-Italy; BAZ (Bundesanstalt für Züchtungsforschung an Kulturpflanzen)-Germany ; HR (The Horticulture and Food Research Institute of New Zeland Ltd)-New Zealand.
OBJECTIVES	
<ol style="list-style-type: none">1. Further marker saturation of peach and apricot segregating populations and candidate gene mapping in the Prunus genome2. Development of novel techniques for fruit texture determination and application of the best techniques for QTL analysis in apple3. Determination of the main parameters of fruit quality and health in segregating populations and genetic dissection of the quantitative traits into QTLs4. Further understanding of the genes involved on allergenicity in apple and first characterization of these genes in peach5. Search for allelic diversity of candidate genes for fruit quality in apple and peach6. Use of the available genomic information in the selection of improved apples.	
TASKS	
<p>Task 6.1.1 Identification and mapping of candidate genes (CGs) for fruit quality in saturated maps of peach and apricot.</p> <p>Task 6.1.2 Identification and characterisation of the most relevant cell wall components of apple texture: application for QTL analysis in apple and validation of methodologies on apricot and peach.</p> <p>Task 6.1.3 QTL analysis of fruit quality</p> <p>Task 6.1.5 Allelic diversity of Candidate Genes and QTLs for fruit quality.</p> <p>Task 6.1.6 Marker-assisted breeding (MAB) in apple.</p>	