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Starch accumulation along flower development and winter dormancy in apricot

Julian C[1,2], Herrero M[1] and Rodrigo J[2]
[1] *Estación Experimental Aula Dei, CSIC, Zaragoza, Spain.*
[2] *Centro de Investigación y Tecnología Agroalimentaria (CITA-DGA), Zaragoza, Spain.*

In temperate fruit trees, flower differentiation starts in summer, but is arrested during winter, when flower buds enter a dormant stage. Dormancy allows the survival of flower buds to low temperatures, and is also a prerequisite for flowering. Cold requirements are genetically controlled, vary among genotypes, and are conditioning factors for the adaptation of species and cultivars to particular areas. However, little is known on what happens in the flower bud during dormancy. In this work, flower bud development is examined in apricot (*Prunus armeniaca*) from autumn up to the spring. While no anatomical changes were observed during dormancy, clear changes in starch distribution along the different flower structures were observed from early differentiation to the end of dormancy. Results are discussed in terms of the possible implications of starch accumulation in the flower bud in chilling fulfilment and breaking dormancy.