

Authors acknowledge the Almond Board of California the support of project "International Almond Variety Spain CEBAS (HORT62)" and to the Spanish Ministry of Science and Innovation the projects "New soft-shelled almond cultivars for European market (SoftAlmond)" and "Almond Breeding assisted by genomic tools (AlmBredOmics)".

Keywords: *Prunus dulcis*, breeding program, new cultivars, soft-shell, flowering time, self-compatibility

#29: Developing a phenotyping protocol to describe almond tree architecture traits influenced by rootstock genotype in commercial cultivars

Maria Jose Rubio Cabetas, Unidad de Hortofruticultura, Avda Montañana 930, 50059 Zaragoza, Spain; mjrubioc@cita-aragon.es (presenting author)

Dr. ALVARO MONTESINOS, MONTAANA 930, 50059 Zaragoza ZARAGOZA, Spain; amontesinos@outlook.es (co-author)

Dr. Grant Thorp, Plant Food Research Australia Pty Ltd., 7 Bevan St, Albert Park, Melbourne, Melbourne, Australia; grant.thorp@plantandfood.co.nz (co-author)

Dr. Jerome GRIMPLET, MONTAANA 930, 50059 Yes ZARAGOZA, Spain; jgrimplet@cita-aragon.es (co-author)

The adaptation to edaphoclimatic and environmental conditions determines the cropping potential of almond (*Prunus amygdalus* (L.) Batsch, syn *P. dulcis* (Mill.)) cultivars. New planting systems, with smaller less vigorous trees, present several potential benefits for increasing orchard profitability. The rootstock genotype influences several aspects of scion development, including tree vigor, which has a decisive impact on cropping success. While several studies have examined rootstock effects on tree vigor, much is still unknown about how rootstocks influence specific aspects of tree architecture. Here, we carried out a study to identify descriptors of rootstock influence on tree architecture. For this, six almond cultivars of commercial significance were grafted onto five hybrid rootstocks, resulting in thirty combinations that were measured after their second year of growth. From twenty-four initial parameters, we selected seven as descriptors of rootstock influence on tree architecture. These related to tree vigor, branching density and branching distribution. We reported that the rootstock genotype affect apical dominance and branch production, though, the effects were not consistent across the different scion/rootstock combinations evaluated. This remarks that each scion/rootstock interaction is unique, making us to consider both the scion and the rootstock genotype when establishing a new almond orchard.

Keywords: tree, architecture, growth habit, cultivars, rootstocks

#31: Diversity analysis of the INRAE and IRTA collection from the Axiom 60K SNP almond array

Henri Duval, INRAE GAFL Avignon , France; henri.duval@inrae.fr (presenting author)

Felipe Pérez de los Cobos, IRTA CRAG, Barcelona, Spain; felipe.perezdelosco@irta.cat (co-author)

Eva Coindre, INRAE GAFL Avignon, Montfavet, France; eva.coindre@inrae.fr (co-author)

Dr. Ignasi Batlle, IRTA, Mas Bové, Tarragona, Spain; Ignasi.Batlle@irta.cat (co-author)
