

## Graft compatibility characterization of new apricot cultivars grafted onto different *Prunus* rootstocks

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In recent years, new apricot cultivars (*Prunus armeniaca*) are being introduced in Spain in order to extend the harvest period from May to September. However, several factors should be considered when selecting an apricot cultivar, including local climate, chilling requirements, flowering and ripening as well as the graft compatibility with the most common rootstocks adapted to our soil conditions.

Plant grafting is an important plant propagation technique that has been widely used in agriculture. However, the application of grafting is restricted due to incompatibility problems between the graft partners (scion and rootstock). In particular, when grafting involves two different species or genera, a lack of affinity may occur and in that case, the candidate will be discarded. The mechanisms behind graft incompatibility are not fully understood yet but involve genetically as well as structural aspects.

Thus, the introduction of new varieties requires knowledge of the extent and nature of incompatibility reactions before releasing these cultivars on the market. In this study, 25 different apricot cultivars grafted onto 4 different *Prunus* rootstocks ('Marianna 2624', 'Mirared', 'Miragreen' and 'Montclar') have been evaluated by vegetative parameters and histological analysis one month after grafting. Graft length, number of leaves and thickening at the graft interface were recorded, as well as the development of new vascular connections between the scion and rootstock of the different unions. The results will provide valuable knowledge at an early stage for determining the most suitable scion/rootstock combination to establish in the field according to their graft compatibility.