

# Agronomical performance, fruit quality and sensory attributes of several flat peach and flat nectarine cultivars

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## Abstract

The effect of flat peach and flat nectarine cultivars on agronomical performance, fruit quality and sensory attributes was evaluated at IRTA-Lleida (Spain) during several seasons. ‘Sweet Cap<sup>®</sup>’ and ‘Mesembrinecov’ were used as reference cultivars for peaches and nectarines, respectively. Blooming was, in general, similar for different cultivars and occurred between ‘Big Top<sup>®</sup>’ and ‘O’Henry<sup>®</sup>’ (reference cultivars). Blooming intensity was high or very high for most of the cultivars except ‘Ordigancov’. Fruit set and hand thinning requirements were also high for all the cultivars except ‘Oriolacov’ and ‘UFO-6<sup>®</sup> (Isfroplat-6Dcov)’. The harvest period ranged from the end of May (‘UFO-1<sup>®</sup> (Isfroplat-1<sup>Dcov</sup>)’) to the middle of September (‘FlatlatecakeDcov’). Early yields were recorded for all cultivars except ‘Oriolacov’, which exhibited delayed yielding. Of the mid-season cultivars, ‘Sweet Cap’ was the peach cultivar that provided the greatest yield and fruit size and ‘Mesembrinecov’ was the nectarine with the greatest colour. Fruit quality parameters were not affected by fruit type: peach or nectarine. Mean fruit diameter ranged from 55 mm (‘UFO-1<sup>®</sup> (Isfroplat-1<sup>Dcov</sup>)’) to 75 mm (‘Oriolacov’) depending on harvest time and cultivar. Lower fruit weight was recorded for the most precocious cultivars: ‘UFO-1<sup>®</sup> (Isfroplat-1<sup>Dcov</sup>)’ and ‘UFO-2<sup>®</sup> (Isfroplat-2<sup>Dcov</sup>)’, while ‘Oriolacov’ had the greatest weight. Fruit colour was affected by cultivar and harvest date. The best colour was recorded for cultivars harvested from mid-June to mid-August. Fruit firmness was lower in early harvested cultivars than in medium or late ones. Soluble solids content ranged from 10 °Brix (‘UFO-2<sup>®</sup> (Isfroplat-2<sup>Dcov</sup>)’) to 16 °Brix (‘Nectacake<sup>®</sup>28 (ASF 04-71<sup>Dcov</sup>)’). Titratable acidity was medium to low for all cultivars except ‘Donutnicecov’, which had the greatest content. Values ranged from 1.5 (‘UFO-6<sup>®</sup> (Isfroplat-6<sup>Dcov</sup>)’) to 10 g/L (‘Donutnicecov’). Sensory attributes were assessed for 12 cultivars, using ‘Big Top<sup>®</sup>’ as the reference for sweet taste cultivars and ‘Diamond Raycov’ for acid taste cultivars. All the cultivars except ‘Donutnicecov’ exhibited a sweet taste.