

EARLY RIPENING OF SOUTHERN Highbush BLUEBERRIES UNDER MILD WINTER CONDITIONS

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Abstract:

Early blueberry production is an effective way to extend the availability of fruit in the markets. Southwest Portugal has good climatic conditions, namely a mild winter climate, for early blueberry production if low chilling cultivars are used. Advancing the harvest of 5-year-old 'O'Neal', 'Reveille', 'Georgiagem' and 'Cape Fear' southern highbush cultivars in temporarily covered tunnels was studied. Polyethylene covers were placed on tunnels in the first days of January, when all cultivars had satisfied their chilling requirements. Covers were removed at the end of April. The cultivars had large differences in days to floral budbreak, 50% flowering and flowering-to-ripening interval. Flowering period was highly correlated with the number of days to floral budbreak (r value ranged from 0.94 to 0.84), but not with floral budbreak-to-flowering interval. Harvest periods were nearly a month before the usual early blueberry production periods in South Europe. Harvest peaks occurred from the 3rd to the 16th of May. 'O'Neal' had the earliest ripening period, and 'Georgiagem' and 'Reveille' the latest. 'O'Neal' and 'Reveille' yields were low (465 and 159 g•plant⁻¹, respectively), however these results were not due to the advancement of ripening. 'Cape Fear' and 'Georgiagem' yielded 811 and 1223 g•plant⁻¹, respectively. Average fruit weight ranged from 0.88 to 1.41 g; 'Reveille' was smallest and 'Cape Fear' the largest. This study suggests that advancing the ripening period with plastic tunnels is a promising method to extend the 'Georgiagem', 'Cape Fear' and 'O'Neal' production period.