

Effect of crop load on the phenological, vegetative and reproductive behavior of the 'frantoio' olive tree (*Olea europaea* L.) Efecto de la carga frutal sobre el comportamiento fenológico, vegetativo y reproductivo en olivo (*Olea europaea* L.) 'frantoio'

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© 2017, Fundacao Oswaldo Cruz. All rights Reserved. The aim of this study was to characterize the phenological, vegetative and reproductive behavior variables of 'Frantoio' olive trees in an 'off' year (with a low crop load) and an 'on' year (with a high crop load). To do this, during the 2011-2012 and 2012-2013 seasons, 'off' and 'on', respectively, phenological variables, plant growth (shoots and roots) and reproductive growth (type of flower, fruit set and growth), were monitored biweekly. In addition, the yield per tree was assessed, and the crop load was estimated. The main results showed that crop load strongly influenced these variables. The distribution and intensity of vegetative growth, both in the roots and aboveground, decreased more and had lower intensity in the high fruiting season, with a large part of this growth occurring prior to flowering. With respect to reproductive variables, a higher percentage of perfect flowers and fruit set in the low flowering season was observed.