S11P08

Production of 'Tahiti' acid lime after branch girdling or ringing

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This work evaluated the effects of girdling and ringing on 'Tahiti' acid lime flowering, rate of flower drop and fruit set. Trees of three years of age were used. They were grown in the subtropical region of the state of Minas Gerais, Brazil. These cultural practices were applied at 8 dates: June 30th 2009, July 15th 2009, July 30th 2009 and August 14th 2009 and June 15th 2010, July 5th 2010, and August 14th 2010 plus a control (not girdled nor ringed). Girdling and ringing were both performed on the main branches of the trees, 10 cm above their insertion on the trunk. Regardless of the year and time of application, girdling and ringing did not alter rate of flower drop and time of flowering and fruit harvest. Fruit set (PFS), number of fruit produced (NFP) and fruit production (PPP) of girdled trees were greater than those for control trees, whereas average mass (AMF) and average diameter of fruits (ADF) were smaller. Ringed plants did not present differences in relation to the control trees. Regardless of the time when the treatments were applied, in 2009 PFS was 3.19 times greater in girdled plants in comparison to the other treatments. Girdling also caused a reduction of 43% in flower abscission. This reduction was responsible for an increase of 117% in PFS, 117% in NFP and 84% in PPP in relation to ringed trees. However, as fruit set increased in girdled trees, AMF was reduced by 12% compared to fruit from ringed or control trees.

S11P09

Horticultural package for high quality 'Tahiti' lime production

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The production and international marketing of the 'Tahiti' lime (*Citrus latifolia*) have significantly expanded in recent years. On the other hand, increasing production costs and the occurrence of novel destructive diseases have motivated the development of more competitive and efficient systems for high quality fruit production. During the past years, four experiments were conducted in Southern Brazil to optimize fruit yield and quality of 'Tahiti' lime. This work summarizes the most important achievements from these experiments in order to propose a horticultural package for high quality 'Tahiti' lime production. The main results from these experiments indicate that dwarfing rootstocks may lead to early-bearing, higher yield efficiency and higher fruit quality of 'Tahiti' lime. Although some other rootstocks may induce high drought tolerance and higher cumulative yield, in this horticultural package the use of irrigation was essential for even higher efficiency. On the other hand, plant size, fruit yield and quality were directly and significantly affected by the 'Tahiti' lime scion selection. Fruit quality and conservation were also significantly influenced by the harvest method. The combination of these practices, including the correct choice of the scion selection/rootstock combination, the use of irrigation and the adequate harvest methods may lead to increased production of high quality 'Tahiti' limes.

S11P10

Field evaluation of two canopy shake systems, OXBO 3210 and OXBO 3220, on citrus orchards in Andalusia (Spain)

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Spanish citrus orchards are threatened by the globalization of the market and the existence of countries with cheaper labor, especially those orchards destined to juice industry in which manual harvest represents about 50% of the final production costs. In this situation mechanical harvesting is a promising way to decrease harvest