

Use of chemical blossom thinners in 'Jerseymac' and 'Jonagold' apples

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Abstract

The effects of flower thinning agents as ATS (1.0%, 2.0%, 3.0%) and Dormex (0.25%, 0.5%, 0.75%) on some fruit characteristics and return bloom were evaluated to create alternatives for hand fruit thinning. Chemical thinning treatments were applied at full bloom, and also hand fruit thinning was done after June drop in six years old apple trees of 'Jerseymac' and 'Jonagold' grafted on M9 apple rootstock. Trials were conducted to determine the efficiency and repeatability of thinners during three experimental years. 0.5% Dormex was the most effective application, which increased quality components such as fruit diameter, and fruit weight in 'Jerseymac'. Furthermore, hand thinning gave similar results. 'Jonagold' variety is unstable thinning respond to applications. The results showed that 'Jerseymac' has regular bearing but 'Jonagold' has tended to biennial bearing. Thinning applications for 'Jonagold' was not effective in reducing biennial bearing severity. Key words: *Malus x domestica*, ammonium thiosulfate, hydrogen cyanamide, biennial bearing Abbreviations: ATS (Ammonium thiosulfate), BA (6-benzyladenine), NAA (Naphthalene acetic acid), NAD (Naphthalene acetamid)