Response of Seewy Date Palm to GA3 and CPPU Spraying

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Abstract:

Abstract The effects of GA3 and CPPU on fruiting of Seewy date palm grown at the Experimental Orchard, Faculty of Agriculture, Assiut University, Egypt were investigated during 2013, 2014 and 2015 seasons. All treatments were sprayed after two or eight weeks of pollination. The experiment was set up in a complete randomized block design with five replications of one bunch each. The obtained results could be summarized as follow: - Fruit set and fruit retention percentage were significantly decreased due to spray GA3 at 50 ppm after two weeks of pollination followed by GA3 or CPPU after eight weeks of pollination compared to unsprayed one (control). - Spraying the bunch with GA3 twice, once at 50 ppm after two weeks of pollination followed once GA3 at 75 ppm plus CPPU at 7.5 or 15 ppm after eight weeks of pollination gave the highest fruit weight, flesh percentage and dimension of fruits compared to unsprayed ones. - Spraying GA3 and CPPU significantly improved the chemical fruit properties in terms of the total soluble solids and sugar contents and significantly decreased the total acidity and total soluble tannins percentages compared to unsprayed ones. So, it concluded that spray GA3 at 50 ppm after two weeks of pollination plus either GA3 at 75 ppm and CPPU at 7.5 ppm or GA3 at 75 ppm and CPPU at 15 ppm to obtain the high yield with good quality of Seewy dates. GA3 reduce the fruit retention and consequently increase the fruit weight and size induce increased the yield. CPPU induced an increase in fruit weight and size then get high yield of Seewy dates. Thus, spraying the bunches of Seewy date palm with GA3 and CPPU had get the heaviest yield with improvement the physical and tested chemical fruit properties

Keywords:

Phoenix dactylifera, Gebberelic acid, Sitofex, yield, fruit quality.

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