

## Effect of Some Endo-Dormancy Breaking Agents on Flowering, Yield and Fruit Quality of "Canino" Apricot

M.A. Fathi, S.M. Hussein and Eman A. Kandil  
Horticultural Research Institute, Agricultural Research Centre,  
Cairo, Egypt.

**T**HIS INVESTIGATION was conducted during 2005-2006 and 2006-2007 seasons to evaluate the effect of spraying "Canino" apricot (*Prunus armeniaca L.*) trees with 1,2 or 3% Dormex (49% hydrogen cyanamide, HC) and 3 or 5% KNO<sub>3</sub>. The present treatments were in combination with 3% light mineral oil (Capl. 2) and applied at 2<sup>nd</sup>, 9<sup>th</sup> or 16<sup>th</sup> Feb. Measurements included dates of: flowering, fruit set, picking, and earliness of picking date than control. Percentages of: flower and vegetative bud burst and retained fruits, were also assessed. Number of matured fruits/tree, fruit yield, crop monetary value and matured fruit characteristics were also estimated. The mentioned components, positively responded to the studied treatments which can be arranged in the following succession: 3% HC > 2% HC > 1% HC > 5% KNO<sub>3</sub> > 3% KNO<sub>3</sub>, where we can notice that, HC was more effective than KNO<sub>3</sub> and the effect of HC or KNO<sub>3</sub> increased with concentration increment. Concerning the spray date, 9<sup>th</sup> Feb. was more effective than 2<sup>nd</sup> Feb. which was more effective than 16<sup>th</sup> Feb. It can be concluded that, the best treatment at where 3% Dormex + 3% mineral oil (Capl. 2) was sprayed at 9<sup>th</sup> Feb. It can be concluded that, the best treatment at where 3% Dormex + 3% mineral oil (Capl. 2) was sprayed at 9<sup>th</sup> Feb. It attained early production and high yield of good fruit quality of "Canino" apricot which increased grower income.

"Canino" apricot is considered the main cultivar being grown in Egypt. It is characterized by a distinct period of rest (endo-dormancy) which extends from late fall till early spring. Re-growth and flowering in the next season needs overcoming such dormancy (Westwood, 1993).

Many investigators used dormancy breaking agents: Kuden *et al.* (1995 b) used potassium nitrate (KNO<sub>3</sub>) to advance apricot flowering and improve fruit TSS. Also, Shakweer (2004) sprayed hydrogen cyanamide (Dormex, HC) + mineral oil to: increase "Canino" apricot flower bud opening, advance flowering and fruit set, increase the percentages of fruit set, fruit retention, number of fruits per tree and fruit yield. Meanwhile, Son and Kuden (2005) showed that HC application advanced flowering of apricot by 2-5 days, while Brunton *et al.* (2006) used HC regularly to advance apricot fruit ripening and achieve higher uniformity of ripening.