

**Title** Is it possible to reduce Ethrel® doses and facilitate mechanical harvest of sweet cherries?  
**Authors** A. Roversi, A. Monteforte  
**Citation** ISHS Acta Horticulturae 795:525-530. 2008.  
**Keywords** *Prunus avium*; processing cherries; fruit loosener; ethylene glycol; glycerol; sodium bicarbonate

#### **Abstract**

Ethrel (2-chloroethyl-phosphonic acid) as a fruit loosening bioregulator facilitates mechanical harvest of sweet cherries (*Prunus avium* L.). Nevertheless, its use has some secondary negative aspects, including gummosis and sometime shoots apex phytotoxicity. It is expensive as well. To reduce cost and/or secondary negative effects by reducing Ethrel doses, substances were added to the dose that might increase its loosening efficiency. For ‘Drogans’ and ‘Denissens’ sweet cherry trees grown in the south of Italy, the efficiency of fruit removal and harvest was monitored after application of 6 different types of loosener solutions, sprayed 3 weeks before the predicted date of harvest. The following solutions were tested on 20 trees/treatment, with 3 replicates: Ethrel at 2100 g/L, Ethrel at half dose, Ethrel at half dose + glycerol, Ethrel at half dose + ethylene glycol, glycerol, and ethylene glycol. All were compared with untreated trees. Ethrel at half doses plus glycerol or ethylene glycol improved efficiency of cherry removal and also reduced the cost from 45 to 48%.