

Title Improvement of quality and storability of apple cv. Aroma by adjustment of some pre-harvest conditions

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Abstract

To improve the quality of the important Swedish apple cultivar Aroma and increase its resistance to bruising and storage decay, three studies were conducted at Kivik research station during the period 1998–2003. The effects of tree age, pruning time and nitrogen fertilization were investigated. Fruits from young trees (younger than 6 years) had a lower resistance to bruising and *Pezizula malicorticis* decay, while fruits from trees older than 20 years seemed to show a quality and storability decline. Choosing a suitable summer pruning time was an effective factor for fruit storage potential. Thinning cut during August (5–6 weeks before harvesting) improved fruit colour and decreased decay without negatively influencing tree yield. Applying fertigation according to fruit development phase and soil nitrogen content had a very important influence on fruit quality and storability. Appropriate nutrition supply produced more deeply coloured fruit that maintained their quality after storage for 4 months. The bruising sensitivity of cv. Aroma apples was correlated with their N and K/Ca content. More coloured fruits showed less sensitivity to bruising.