Title Harvest date effects on fruit quality of 'Abbé fetel' pears

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Abstract

'Abbé Fetel', with its very good flavor characteristics, has been planted in the High Valley region of Argentina. The objective of the present study was to investigate harvest date effects on fruit quality from initial commercial harvest (ICH) for five weeks, during different seasons. Fruit were collected weekly from the experimental orchard of the Comahue National University (lat. 38°56' S 67°59' W). Fruit weight (FW), fruit diameter (FD) and maturity indices were measured during 2001, 2002 and 2003. Analysis of variance was used and mean separations were computed with Tukey's range test. Relative humidity, sunshine duration and temperature were monitored in the orchard during the experimental period. At ICH, the range values for FW, FD, fruit firmness, starch index and soluble solids concentration (SSC) were 208.3 to 232.9 g, 63.4 to 68.8 mm, 53.3 to 61.7 N, 2.50 to 3.60 and 11.4 to 12.1 °Brix, respectively, for the three years. FW and FD increased over time; fruit softened markedly with advancing harvest date and firmness differed (P&H8804;0.05) between the seasons. Patterns of starch degradation changed greatly over time and they were also affected by the growing season. SSC slightly increased with harvest date, but the lower values of fruit from ICH compared with fruit collected four weeks later were not significant. This suggests that its usefulness as a harvest index for 'Abbé Fetel' is limited. More research is needed to determine the effect of harvest dates on maturity indices under alternative environmental and management conditions.