

Title Plums: Harvesting date, quality and storage

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Abstract

Plums (*Prunus domestica*) tend to be harvested too early, in order to prevent decay and to make them capable of being transported. At the point of sale, therefore, the fruit are often only just ripe enough to eat. Fruit harvested later, although better tasting, are more susceptible to decay. Thus the question as to the optimum harvest date to balance sensory quality and susceptibility to decay. In tests of 11 (2008) and 9 (2007) varieties, each of which had been harvested at three or four different dates, shelf-life tests have been carried out to determine the susceptibility to decay and sensory qualities of fruit. As was to be expected, there was a relatively large reduction of fruit firmness in all varieties the later the harvesting date. Fruit firmness was reduced still further during the shelf life of 7 days. The sugar content remained stable but acids decreased by between 5-10 %. The sugar-acid ratio increased slightly, but sufficient to significant for the sensory evaluation, as the harvesting date was delayed. The later the harvesting date, the higher was the proportion of unsaleable fruit. The variety and the amount of precipitation before and during harvesting had a strong influence on susceptibility to decay. In the Vanette and Cacaks Schöne varieties, the proportion of unsaleable fruit for those harvested with stalks was significantly lower than for the fruit picked without stalks. The reason for this is the tearing of the fruit flesh when the stalk is removed. The minimum acceptance values for the internal quality parameters were only attained by some varieties at later harvesting dates, although their susceptibility to decay was then higher. In the overall sensory evaluation of the fruit, in most cases the sweetness and firmness of the flesh was less decisive than the sensory evaluation of the acids.