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Pomological and antioxidant properties of apricot (*Prunus armeniaca L*.): Fruit management and quality analysis

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A pricot (*Prunus armeniaca L.*) is one of the most widely spread Prunus species cultivated in the temperate zones and it is an important source of bioactive compounds. The study was conducted on Moroccan apricot (ten clones) stored in different conditions of temperature and humidity after 7, 15 and 30 days. The aim was to evaluate the impact of ripening and storage on apricot pomological traits (weight, color, flesh firmness, total soluble sugars, titratable acidity and sucre/acid ratio) and antioxidant properties which help to determine the fact how it affect apricot quality. The Principal Component Analysis (PCA) was carried out and indicated a large variability among the studied variables. On a principal component analysis, acceptability was shown to be positively associated with sweetness and fruit color and negatively associated with acidity. After 15 days and 30 days of cold storage, unripe fruit appeared to have low acceptability and quality attributes. The interactions between the studied factors (genotype, ripening and storage system) on pomological traits changes may help to select a set of genotypes with better performances. Indeed, the ripe fruit (red-orange skin colors) showed the highest antioxidant activity. After 15 days of cold storage, the fruits were still acceptable; but, after 30 days, fruits reached the dislike zone. Marouch apricot clones harvested with an orange yellow skin color, as the least ripe fruits, showed that they could reach high quality standards and were able to withstand long periods of cold storage. The exposure of apricot fruits to accelerate and periodic conditions during storage show that the organoleptic, chemical and physical proprieties were decisive factors on determination of quality and safety in conservation of apricot fruits.

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