

Title Characterization of argentine's globe artichoke (*Cynara cardunculus* [L.] Var. *Scolymus*) cultivars by post-harvest related traits

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Abstract

In Argentina, since globe artichoke production is destined mainly to the fresh market, capitula are harvested, depending on cultivar and culinary uses, when maximum sizes are reached. In this contribution, primary and secondary order capitula of the cultivars 'Oro Verde FCA', 'Gauchito FCA', 'Esmeralda FCA', 'Gurí FCA', 'Estrella del Sur FCA' and 'Francés', were evaluated for traits related to quality: head weight and diameter, inner bracts color, pappus length, and contents of fiber, dry matter and phenols. Data were subjected to principal component analysis. For the first order capitula, the two principal components explained 78% of the variation, being head weight, diameter, content of dry matter and phenols associated to the first component (CP1) and pappus length, bracts color and fiber content to CP2. Cultivars 'Gauchito FCA' and 'Gurí FCA' presented a reduced pappus length, and high dry matter and phenols content, meanwhile 'Esmeralda FCA' showed intermediate dry matter content and the lowest values of phenols and pappus length. For the second order capitula, the first two principal components also explained 78% of the variation; but the phenols content was not important, being the CP1 associated to head weight, diameter, and dry matter content; and CP2 to pappus length and fiber content. 'Gurí FCA' was the best cultivar, showing the lowest values of fiber content and pappus length, and intermediate values of head weight, diameter and dry matter content. 'Oro Verde FCA' was the poorest material. 'Gurí FCA' was selected for a double purpose use; that is, first order capitula for fresh market, and second order for industry.