

[P1.230]

Sensory characteristics of organic grape juices

A. Miele*, J.C. Fioravanço
Embrapa Uva e Vinho, Brazil

The demand for organic products increases yearly throughout the world. Following the trend, Brazil produces considerable volumes of grape juices, mainly made with *Vitis labrusca* varieties. In order to establish the sensory characteristics of juices made at Serra Gaúcha, the Brazilian southernmost viticulture region, an experiment was carried out in 2013 with Concord, Cora, Cynthiana, Isabel, Isabel Precoce, and Ives grape varieties. Fruit harvest took place in January and February, when the berries were mature. Grapes were transported to the winery for crushing and, subsequently, the juices were transferred to a stainless-steel tank where they remained for about 6 hours. The process used to make the juices was by heat exchange. After processing, they were pasteurized and bottled. Sensory analysis was performed by a group of 16 panelists using a non-parametric 9 mm sheet with 18 descriptors. PCA demonstrated that the principal components (PCs) 1, 2, and 3 were responsible for 81.96% of the total variation. PC1 discriminated Isabel Precoce from Cora and Cynthiana, where the first one was characterized by fruity smell and fruity and jelly taste, equilibrium, and good quality. In the other hand, Cora and Cynthiana showed undesirable smell and were characterized as herbaceous, salty, bitter, and astringent. PC2 discriminated the juice of Concord, which was described as having floral smell and fruity taste. PC3 discriminated the juice of Isabel, which presented low color intensity and low hue. The correlation matrix among the descriptors showed a positive correlation between quality and fruity smell, sweet taste, and equilibrium; and a negative correlation with herbaceous smell and bitter, herbaceous taste. Despite the adverse climatic factors during the grapevine vegetative cycle, which generally leads to fungi infections and reduction in vineyard yield, this region presents conditions to produce good quality organic grape juice.

Keywords: Sensory analysis, Organic grapes, Grape juice, *Vitis*