QUALITY AND ANTIOXIDANTS OF FIVE VARIETIES OF STRAWBERRIES GROWN IN BRAZILLIAN SAVANNAH

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Strawberry is a much appreciated fruit throughout the world. The fruit may have different chemical and sensory characteristics as a function of genotype and soil and climatic conditions to which it was submitted in the pre-harvest. The objective of this study was to evaluate the quality and antioxidant properties of five strawberry cultivars (‘Camino Real’, ‘Camarosa’, ‘Osogrande’, ‘Festival’ and ‘Ventana’), produced in the Brazilian savannah. The strawberries were harvested at the pink stage of maturation and evaluated for acceptability attributes of appearance, flavor, texture and overall quality, total titratable acidity, total soluble solids, vitamin C and fractions, total phenolics, total anthocyanins and in vitro antioxidant activity. ‘Osogrande’ and ‘Camino Real’ strawberries had higher average acceptance for all attributes, whereas cultivar ‘Ventana’ was the least accepted. Although ‘Osogrande’ and ‘Ventana’ have shown the same relationship Brix / acidity, the higher content of soluble solids was observed in variety Osogrande. Cultivar ‘Festival’ had the highest concentration of vitamin C (882.14 mg.kg⁻¹FW and ‘Osogrande’, the lowest (522.86 mg.kg⁻¹FW). Cultivar ‘Camarosa’ had the lowest content of total phenolic compounds (1654.04 mg.kg⁻¹ FW) and the lowest antioxidant activity (25.46-µM.g⁻¹FW). ‘Camino Real’ fruits had the highest content of total anthocyanins (350,6mg.kg⁻¹FW).

Results suggest that further study about the phenolic profile of varieties is necessary to elucidate its effect on the characteristics of flavor and texture of strawberries.

Keywords: strawberry, cultivar, acceptability, vitamin C, antioxidants.