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PaperTitle **Texture and sensory profiling as a method to characterize different potato cultivars**

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ABSTRACT

A trained sensory panel was used to study the relationship between the texture and flavour attributes of seven different potato cultivars from the Eastern Free State. Panellists were carefully selected and trained to assess the texture and flavour attributes and to develop terminology for describing the different potato cultivars, in terms of the aroma, texture and flavour. In addition, objective tests were applied in order to assist in the characterization of different potato cultivars. These included obtaining a shear force value for each cultivar of cooked potatoes, using an Instron Universal Testing Machine, and determining the specific gravity of each cultivar. Principal Component Analysis (PCA) was applied to identify any factors differentiating between the potato cultivars. The findings indicated that the main differences were in the flavour and textural characteristics of the different cultivars and that the tests applied in this study were effective as methods for characterizing different potato cultivars.