Quality Assessment of Fresh Paprika by Sensory Evaluation and Instrumental Analysis

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This study was conducted to evaluate the quality of fresh paprika in physical and sensory properties. We obtained fourteen kinds of paprika from different area (Cultivar: Boogie, Chelsea, Cupra, Derby, Glory, Kelly, Special/ Color: Green, Yellow, Orange, Red/ Province: Gangwon, Gyeongsang, Jeolla). Surface color (Hunter values; L*, a*, b*) and penetration force were measured using colorimeter and Texture analyzer. Sensory properties including appearance (size, color, glossy, preference), texture (hardness, juiciness, preference), taste (sweetness, pungent, acidness, preference), flavor (flavor, preference) were also evaluated using 30 trained professional panels. Surface color of red and yellow fresh paprika in Gyeongsang province was significantly higher than other provinces. Penetration force of green fresh paprika in Gangwon province was highest value as 1602.62±107.50g, orange fresh paprika in Gyeongsang province was lowest value as 974.76±81.74g. In orange fresh paprika, sensory properties of Glory cultivar was better than Boogie cultivar. In red fresh paprika special cultivar, sensory properties of Gyeongsang province was better than Jeolla province. In yellow fresh paprika, sensory properties of Derby cultivar was better than Chelsea cultivar. The results suggested that color values and penetration force might be applied as important factors for the quality control in post-harvesting and consumer preference.