



Papaya taste profile

What is the best way to find papayas that are still tasty after long transportation? Wageningen Food & Biobased Research carried out research on this subject under the auspices of the GreenCHAINge programme. The findings will help fruit companies take well-considered decisions regarding the selection of both cultivars and markets, and increase the market opportunities for papayas in Europe.

Intrinsic quality

The four-year programme GreenCHAINge aimed to improve the intrinsic quality of fresh fruits and vegetables on the shelf by developing an innovative 'smart chain'. The key focus of work package 2 was to ensure high-quality, tasty papayas in shops following transport from Brazil to the Netherlands.

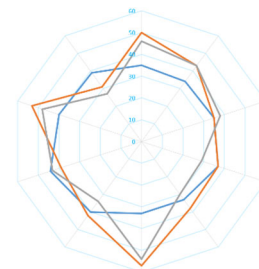
Consumer panel

The scientists asked a panel of consumers to compare the taste of two cultivars in a Tetrad test. Tainung, an established cultivar, was judged to have a taste significantly different from that of the novel papaya cultivar to which it was compared. Tainung had lower scores on bitterness and aftertaste and was perceived to be sweeter. As such, it was preferred to the novel cultivar, which was found to have a taste profile similar to the cultivar Maradona but with a sweeter, nuttier flavour. Overall enjoyment was positively correlated with sweetness and fruitiness, and negatively correlated with bitterness and aftertaste.

Effects of transportation

Papayas destined for the European market usually originate in Brazil, Peru or Mexico. Transportation overseas requires approximately two to three weeks. To prevent softening and damage in transit, papayas are harvested while still unripe, and ripened before delivery to supermarkets. This leads to papayas in Europe generally having a less rich taste than papayas that have ripened on the branch and are freshly consumed. It is therefore crucial to select papaya cultivars with a taste profile that is appreciated by consumers and able to survive the long transport.

"Papayas with increased sweetness and decreased bitterness are key to stimulating Europeans to eat more papaya."



The sensory profiles in this spider chart – where each axis represents a taste attribute – show that Maradona (orange) is similar to the novel cultivar (grey), while Tainung (blue) is quite different.

For detailed information about the results of this project, please visit www.wur.eu/greenchainge.

 GreenCHAINge



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