

Abstract

Purple Sweetcorn – An innovative Horticultural Product – Consumer Views †

Sandra Milena Olarte Mantilla ¹, Philippa Lyons ², Tim J. O'Hare ¹ and Heather Eunice Smyth ^{1,*}

¹ Queensland Alliance for Agriculture and Food Innovation (QAAFI), The University of Queensland, Coopers Plains, 4108 Brisbane, Australia; s.olartemantilla@uq.edu.au (S.M.O.M.); t.ohare@uq.edu.au (T.J.O.)

² Queensland Department of Agriculture and Fisheries, Coopers Plains, 4108 Brisbane, Australia; Philippa.Lyons@daf.qld.gov.au

* Correspondence: h.smyth@uq.edu.au

† Presented at the third International Tropical Agriculture Conference (TROPAG 2019), Brisbane, Australia, 11–13 November 2019.

Published: 13 February 2020

Abstract: Purple sweetcorn has been conceptualized as an innovative premium horticultural product that may provide consumers with the potential health benefit of anthocyanins. Gathering consumer insights is crucial to inform the breeding program to obtain a purple sweetcorn product closer to consumer's requirements. Thirty-six non-food neophobic sweetcorn consumers participated in a focus group session on the concept of purple sweetcorn, as well as visually evaluating early breeding lines. Consumers were very positive about the concept of purple sweetcorn and had clear ideas of potential uses. Consumers preferred that purple sweetcorn taste different to commercial yellow sweetcorn, and that health claims would support a premium price position. A small scale follow up consumer study (n = 10) was carried out where consumers were asked to rate acceptability for visual (raw and cooked), flavour, textural and overall of two purple sweetcorn breeding lines (reddish-purple and purple) and compared against commercial yellow sweetcorn. Visual acceptability scores were higher for purple than the reddish-purple lines for both cooked and raw forms, but the yellow cobs were the most preferred. In contrast, flavour and overall acceptability scores were higher for the reddish-purple and yellow cobs than the purple lines. It was also noted that the reddish-purple and purple lines had a slight raspberry flavour. Consumer's discussions outcomes from both studies were that consumers preferred better color coverage across the kernel, which will be the direction in continuing the development of purple sweetcorn lines. This study demonstrated there is a market for a premium purple sweetcorn product among consumers.

Keywords: purple sweetcorn; consumers; focus groups; acceptability

Funding: This research was funded by Hort Innovation project 'Naturally Nutritious' grant number HN15001.

Conflicts of Interest: The authors declare no conflict of interest.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).