

ABSTRACT

Sugar replacers such as Stevia (*Stevia Rebaudiana*) are fast replacing sugar because of their added benefits. However, Stevia is known to have an astringent aftertaste which consumers might not accept. Therefore, a comparison was carried out to see the perceived aftertaste of Stevia and sugar in flavored beverage products according to consumers. A preliminary experiment was carried out to investigate the proper formulation of beverages in terms of sugar to Stevia ratio as well as in terms of flavor concentration. Stevia that is 200 times sweeter than sugar was closer in means for sweetness intensity scores (6.1) to sugar (7.6). As for flavor concentration formulation, no significant difference was observed for the overall liking score ($p < 0.05$) therefore the lowest formulation (0.025%) was used to save costs. According to the consumer perception tests aftertaste is not significantly different across all 8 treatments. However all the other character notes being sweetness intensity, bitterness, astringency and overall liking which were being investigated had a significant difference. At ($p < 0.05$) strawberry with sugar was liked most (6.0), Lemon with Stevia recorded the highest bitterness (0.7) and Green tea with Stevia was the most astringent (0.6). The results grouping was more according to sweetener than to flavor. All sugar flavored beverages could be put in the same class which was different from Stevia flavored beverages. For interaction effects, bitterness was significantly different in Stevia sweetened beverages. Consumers' behavior was assessed by the use of Likert-type scales such as food neophobia scale, food involvement scale and health and taste attitude scale. No differences in gender for food involvement and neophobia noted. As for the general health and taste attitude scale, males had a higher mean (4.4) as well as on the taste subscales (4.6) at ($p < 0.05$). Furthermore, on the subscales, the individual scales had no significant differences except for light product interest, with males having a higher mean than females.