

LOW CALORIE
CRANBERRY
JUICE



Contract Testing Inc.



INTRODUCTION

The trend for 'low-carb, low-cal, low-fat' continues to raise the roof in the North American food and beverage market. Concerns about mounting rates of obesity, diabetes, and our collective health and well-being have given rise to a growing segment of health conscious consumers. And while most healthy eaters are keenly aware that fruits and vegetables are an integral part of their healthy daily intake, many also claim that they are not getting enough.

For some, fruit juices are a convenient go-to solution for acquiring the recommended daily dose of vitamins without the timely tasks of peeling, slicing, and squeezing. However, with its typically high sugar content, fruit juice is frequently deemed a no-no among nutritional experts. So the solution for some juice lovers lies in making the switch to low-calorie or sugar-reduced options of their favorite fruity beverages, which can pack all the punch of regular juice in terms of nutritional delivery, without the caloric and carbohydrate intake.

One example of this, as noted in our headline, is low-calorie cranberry juice. In addition to fulfilling the RDI for Vitamin C, this darling among juices carries some of the highest levels of polyphenols which support our body's natural defenses. In fact recent studies have revealed that drinking low-calorie cranberry juice may help lower the risk of chronic diseases including heart disease, diabetes, and stroke.

This research aims to explore differences in the flavour and sensory profiles of various brands of low-calorie cranberry juice and to determine which aspects of the juice are key drivers of liking.



MATERIALS AND METHODS

This research recruited 50 females, between the ages of 25 and 54, to our Central Location Testing facility in the Greater Toronto area. All were past month users of low-calorie cranberry juice.

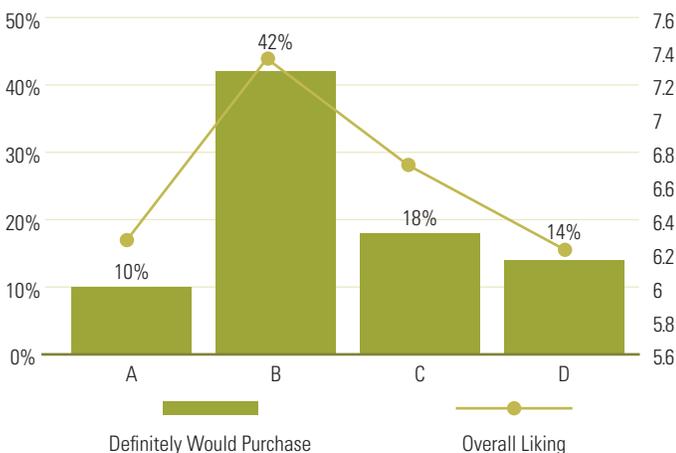
The test included two samples of National brands and two Private label brands, all purchased at local grocery stores. All brands claimed calories between 30 and 40 per 250 ml, although sugar contents were more variable from 2 to 11 grams of sugar per cup. Two brands stated Sucralose as the main sweetening additive, while two used Stevia leaf extract.

Each participant received a 100 ml portion of each sample in a 7oz. cup labeled with a 3 digit code number served one at a time in varied order. They were first asked to evaluate the appearance and aroma, followed by a series of liking and 'just about right' questions on specific sensory attributes.

RESULTS

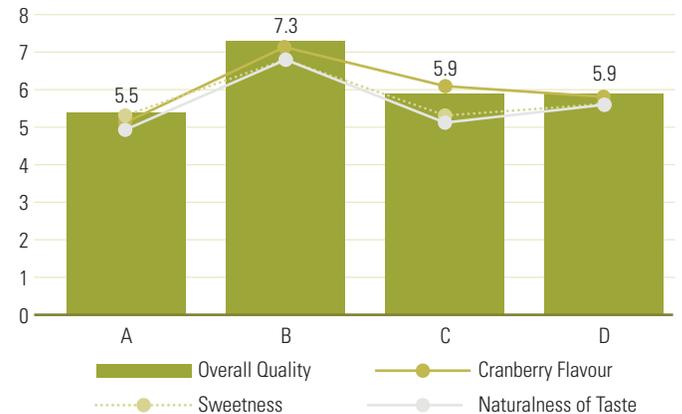
In blind tasting, only one brand achieved results which exceeded the norms of the fruit juice category. Brand B had top-box purchase intent of 42% and a mean score of 7.4 on Overall Liking - both above the respective hurdles of 25% and 7.0 in this category. (see Figure 1)

Figure 1 – Top Box Purchase Intent and Overall Liking



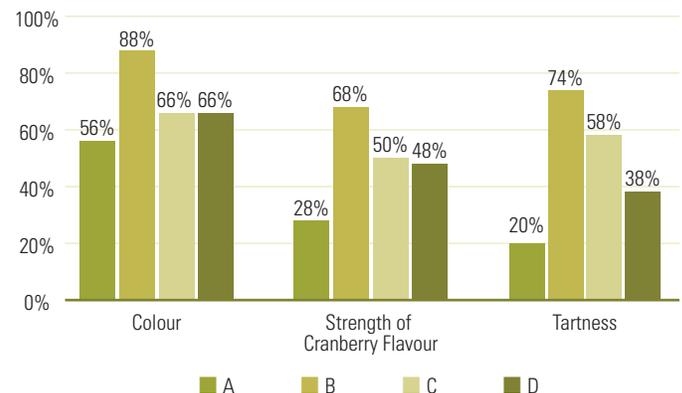
Brand B scored significantly better than the others for all aspects of the flavour profile, including cranberry flavour, sweetness, and naturalness of the taste. (see Figure 2) This superior flavour profile translated to significantly higher perceptions of overall quality.

Figure 2 – Perceptions of Overall Quality and Naturalness of Taste and Liking of Cranberry Flavour and Sweetness – Mean Scores



Brand B was also the only one to get the colour, level of cranberry flavour, and tartness "Just Right" exceeding the hurdle of 70% just right for colour and tartness and 65% for strength of flavour. (See Figure 3)

Figure 3 - Percentage of Respondents Rating Attribute "Just Right"



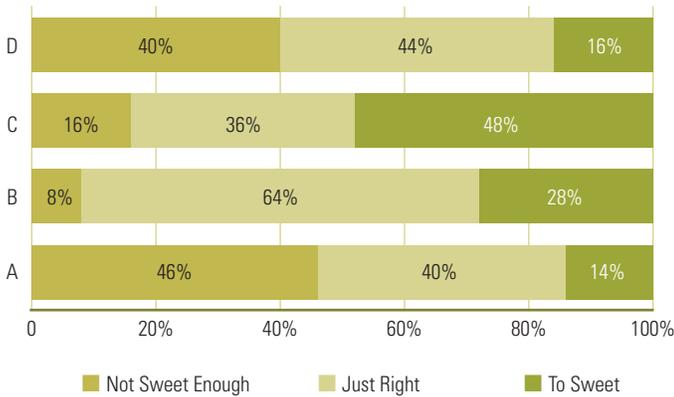
Brand B's darker, redder colour likely made it more visually appealing than the other brands and contributed to the superior perceptions of the flavour.

The other three brands scored poorly and at parity to each other on almost all measures. Their low scores for purchase intent and overall liking appear to be driven by a combination of weak cranberry flavour and the wrong level of sweetness. (See Figure 4) Almost half of respondents found Brand C to be too sweet. Brand A was found to be not sweet enough by almost half of respondents.



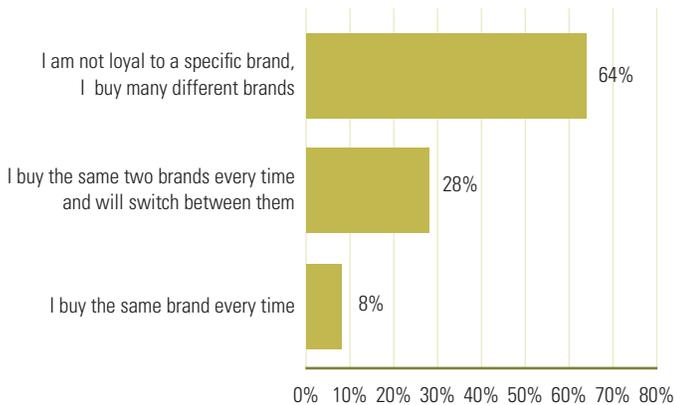


Figure 4 – Perceptions of Sweetness



Although there was a clear winner among the brands we tested, over 2/3 of respondents claim not to hold any strict brand loyalty. (See Figure 5)

Figure 5 – Brand Loyalty



Instead, almost 3/4 of respondents claim to choose brands based on price, with “healthier” and “best taste” being secondary reasons for brand choice. (See Figure 6)

Figure 6 – Reasons for Brand Choice



CONCLUSIONS AND IMPLICATIONS

The objective of this research was to investigate the sensory performance of low-calorie cranberry juice. We included both national and private label brands and recruited female consumers residing in one geographical area – the Greater Toronto area.

Within this framework, we see that there are clear differences in the sensory profiles and likeability of the different products, driven mainly by strength of flavour and sweetness/tartness. Mounting concerns over added sugars are creating big opportunities for beverage innovation but as always, meeting consumer taste expectations is essential for success, and product developers are challenged to create reduced-sugar beverages that mimic the full-sugar experience. While consumers claim to be driven by health concerns, they do not appear to be willing to sacrifice taste.



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