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PANNA COTTA SUGAR-FREE VEGAN DESSERT

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Abstract: Panna Cotta is one of the Italian desserts served cold. The raw materials for this dessert are cream and milk which are cooked with other ingredients such as sugar and gelatine. Due to the massive increase in the number of people choosing a vegan diet in recent years, the market demand for vegan Panna Cotta desserts has been growing. A first goal of this work was to obtain a vegan alternative to the Panna Cotta dessert, using almond milk and coconut milk, and as sweetener natural xylitol extracted from birch, as well as two topping variants: one with dark chocolate (no added sugar) and blueberries (VPC1) and the second with mango and coconut flakes (VPC2). Another aim of the work was to analyze the final products obtained in terms of total polyphenol content, antioxidant activity, proximate composition and sensory properties. The analysis of total polyphenol content and DPPH free radical inhibitory activity revealed that, among the raw materials, sugar-free vegan chocolate and blueberries recorded the highest levels. Thus, the VPC1 finished product assortment with vegan chocolate and blueberry topping was the richest in TPC (2.85 ± 0.08 mg GAE/g) and with the strongest antioxidant activity ($75.34 \pm 0.21\%$). The data obtained on the proximate composition of the finished products showed that the two varieties of vegan Panna Cotta were very similar in terms of protein content, and in terms of fat, total carbohydrate, dietary fiber VPC1 was richer than VPC2. In contrast to the classic dairy and sugar-added Panna Cotta, the assortments proposed in this paper are lower in calories, lower in fat, cholesterol free, higher in protein and dietary fiber. The sensory analysis of the two variants of vegan Panna Cotta resulted in very good scores for all sensory characteristics analyzed by the panelists, with the VPC2 assortment being the most highly rated.

Results and discussion

Table1.

Total polyphenol content in raw materials and finished products

Sample	Total polyphenols (mg GAE/g)
Almond milk	0.36 ± 0.04
Coconut milk	0.21 ± 0.02
Vegan chocolate sweetened with Stevia rebaudiana	33.16 ± 0.11
Blueberries	11.45 ± 0.10
Mango pulp	3.89 ± 0.04
Coconut flakes	2.11 ± 0.01
VPC1	2.85 ± 0.08
VPC2	1.64 ± 0.02

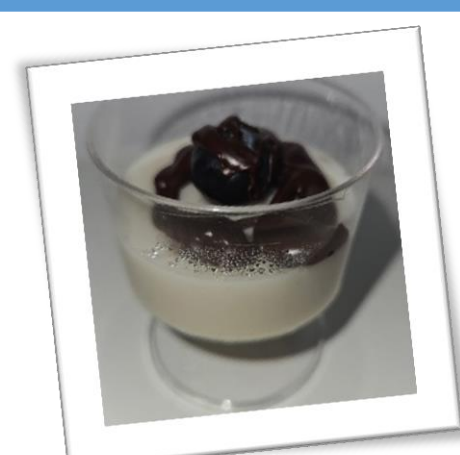


Table2.

Free radical DPPH scavenging activity (RSA) (%) for raw materials and finished products

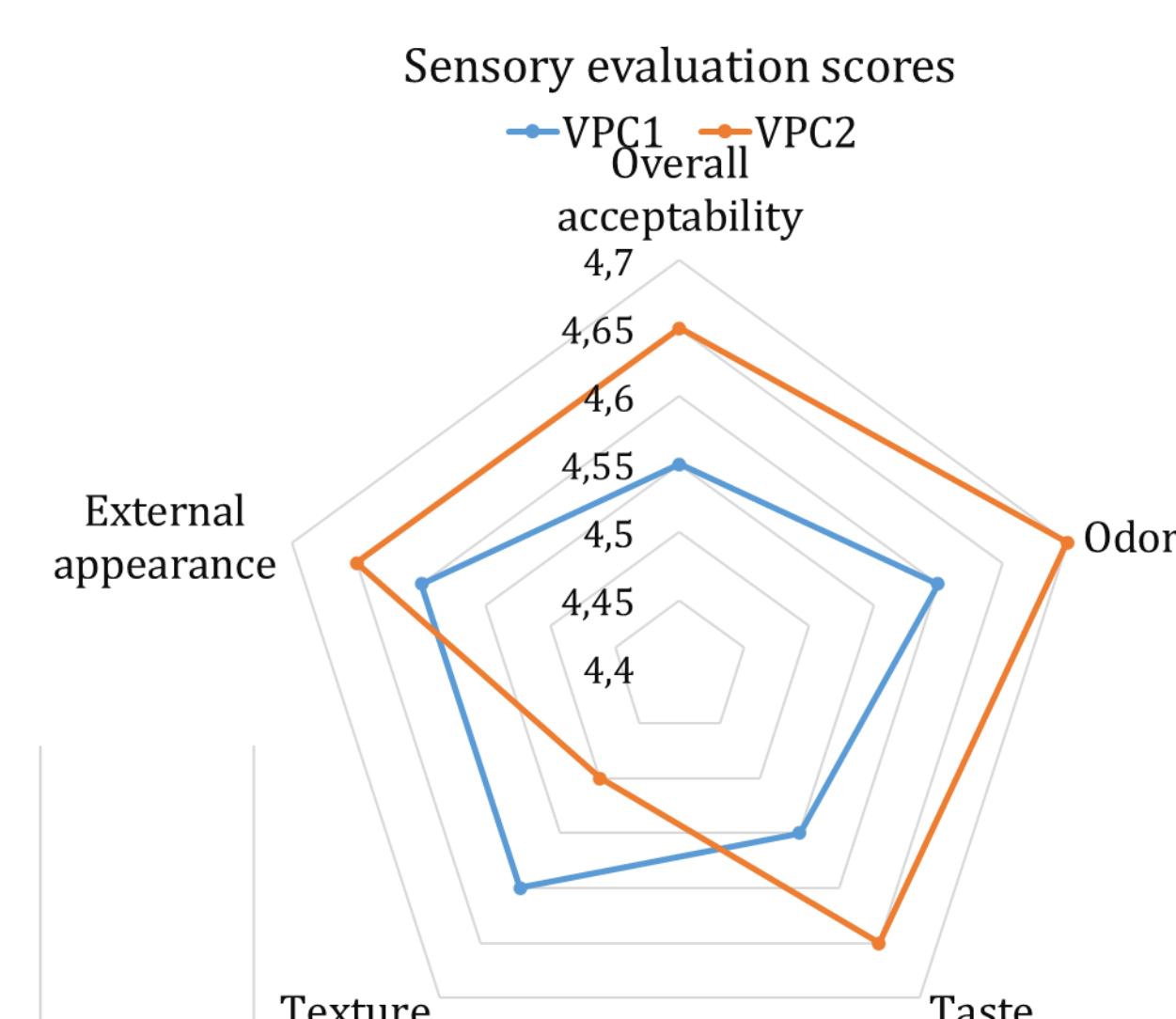
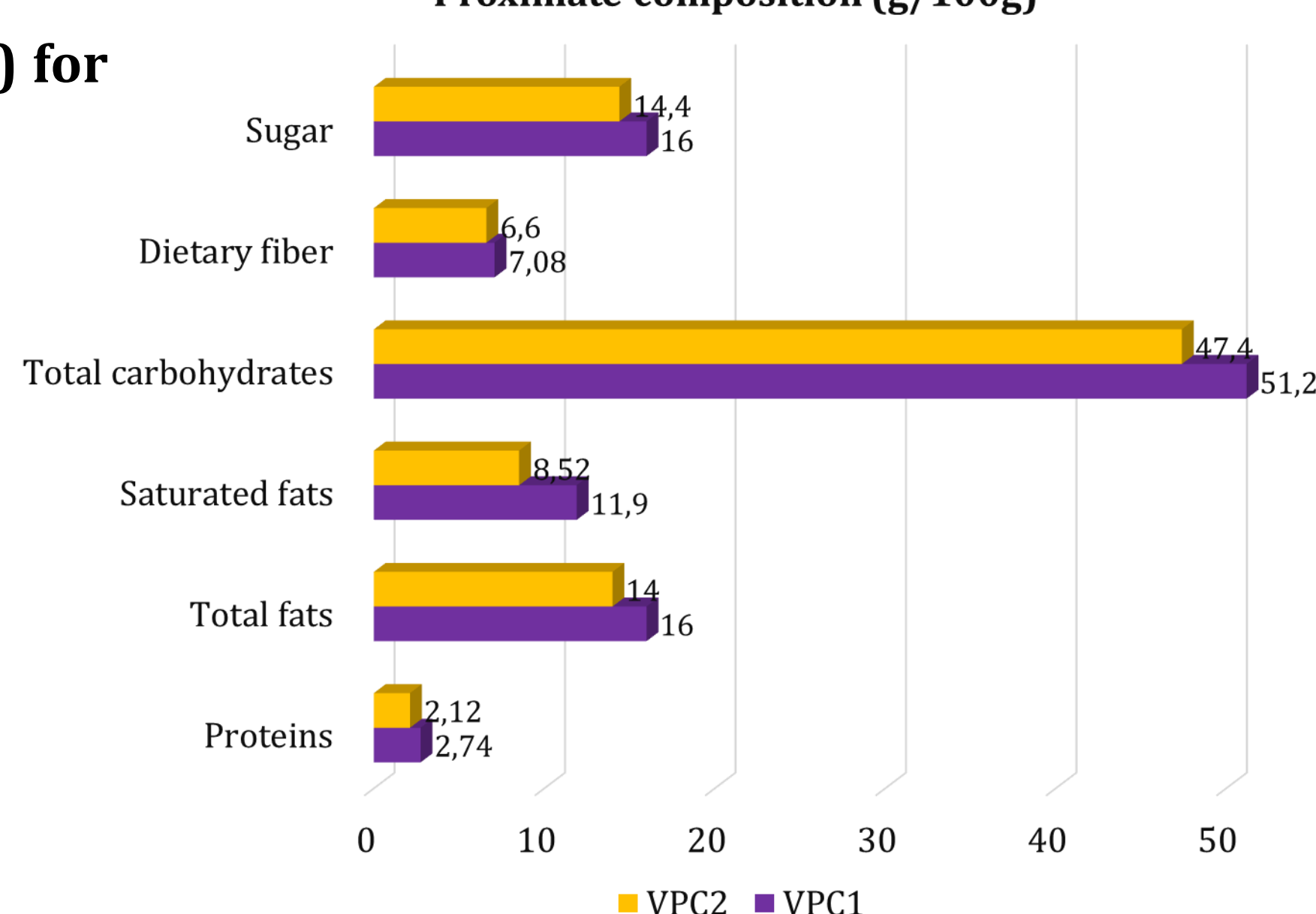
Sample	RSA (%)
Almond milk	57.43 ± 0.11
Coconut milk	53.28 ± 0.10
Vegan chocolate sweetened with Stevia rebaudiana	96.64 ± 0.28
Blueberries	93.86 ± 0.24
Mango pulp	87.16 ± 0.18
Coconut flakes	51.63 ± 0.08
PCV1	75.34 ± 0.21
PCV2	67.02 ± 0.14



Conclusions

The sugar-free vegan Panna Cotta varieties proposed in this paper can be a nutritionally and sensory attractive alternative to classic Panna Cotta (dairy and sugar-added) - appealing primarily to those with lactose intolerance, those with sugar and cholesterol restrictions, vegans, but of course also to those who want to eat healthy and tasty new foods.

Proximate composition (g/100g)



Energy value (kcal/100g)

