

Effects of Adding Green Grape Juice on Sensory Characteristics of Konjac Jelly

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Abstract

Jelly is a semisolid food in a gel form, which is attracting attention as a food for infants and seniors. Gelling agents for jelly are pectin, agar, gelatin, konjac, and carrageenan. Konjac among them, which contains lots of glucomannan, is a low-calorie food with 6 kcal per 100 g and is much used as a gelling agent for jellies. Fruits used in making jelly are strawberry, peach, orange and grape. Fruit jelly containing vitamin C and dietary fiber can be taken as healthful snack. Green grape is widely used as material for wine and juice. Green grape containing abundant citric acid and organic acid is known to help recover from fatigue. Also it has ever been reported to have antioxidant, anticancer, and antiasthmatic activity. This study examined the sensory characteristics of konjac jelly containing green grape juice (GJ). Konjac jellies were prepared with different concentrations (0%, 25%, 50%, 75%, and 100%) of GJ and their generic descriptive analysis and consumer acceptance test were examined. A generic descriptive analysis was performed using eight trained panelists. Acceptance test was carried out by 100 consumers using nine-point hedonic scale. The result of principal component analysis showed that the sample groups with high GJ content were classified as having a relatively strong yellow color, sweet aroma, grass smell, sweet taste, sour taste, green grape skin taste, and astringency, and the sample groups with the low GJ content were classified as having a transparency, hardness, and gumminess. In the result of acceptance test, GJ50 sample group was evaluated to be high in flavor ($p<0.001$) and overall acceptance ($p<0.01$). Based on the acceptance test results, when producing konjac jelly, 50% of the GJ could be substituted with water. However, sample groups with 50% or more of GJ were evaluated to be significantly strong in astringency. Therefore, further study has to be conducted about improving astringency in the future.

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Keywords: *Green Grape Juice, Jelly, Konjac, Sensory characteristics*

References

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