

Jagung manis merupakan salah satu sereal yang strategis dan bernilai ekonomi serta mempunyai peluang untuk dikembangkan. Minuman serbuk instan atau minuman formula serbuk merupakan salah satu alternatif yang baik untuk menyediakan minuman menyehatkan dan praktis.

Pada penelitian ini dilakukan pembuatan minuman formulasi serbuk jagung manis dengan variasi waktu pengukusan dan perebusan selama 3, 6, 9, dan 12 menit. Pengujian dilakukan terhadap atribut sensoris (warna, aroma, rasa, body, aftertaste dan keseluruhan), atribut fisik (warna serbuk, warna minuman formulasi serbuk, warna seduhan, viskositas seduhan, total padatan terlarut (TPT), *water holding capacity* (WHC), distribusi partikel dan pH seduhan) dan pengujian kimia meliputi kadar air, abu, protein, lemak, karbohidrat, gula total dan *total suspended solid* (TSS).

Hasil penelitian menunjukkan variasi waktu tertentu tidak mempengaruhi karakteristik sensoris produk yang menunjukkan F hitung sebesar 0,44 lebih kecil dari F tabel sebesar 2,71. Namun hasil analisis data menunjukkan panelis memberikan respon terbaik untuk minuman formulasi dengan perlakuan pengukusan 9 menit dan perebusan 6 menit. Pengujian terhadap sifat fisik dan kimia dari formula terbaik selanjutnya dilakukan yang menunjukkan sampel minuman formula serbuk jagung manis dengan perebusan 6 menit memiliki nilai tertinggi dengan kadar air 5,28%, kadar abu 3,86%, kadar protein 7,25%, kadar lemak 9,63%, kadar karbohidrat 73,89% dan kadar gula total 102,05%. Hasil uji TSS menunjukkan semakin lama waktu perebusan meningkatkan kadar TSS dan warna larutan. Sementara itu hasil pengujian fisik pada warna, viskositas, TPT, WHC, dan distribusi partikel sampel perebusan 6 menit menghasilkan nilai yang lebih baik. Sedangkan pH perlakuan pengukusan lebih tinggi dibandingkan perebusan.

Kata kunci: Jagung manis, minuman formula serbuk, perebusan, pengukusan

ABSTRACT

Sweet corn is one of the cereals that is strategic and has high economic value and has the opportunity to be developed. Instant powder drink or powder formula drink is a good alternative for providing healthy and practical drinks.

In this research, a sweet corn powder formulation drink was made with variations of steaming and boiling time for 3, 6, 9, and 12 minutes. Tests were carried out on sensory attributes (color, aroma, taste, body, aftertaste and overall), physical attributes (powder color, powder drink formulation color, color of solution, viscosity, total dissolved solids (TPT), water holding capacity (WHC), particle distribution and pH solution) and chemical testing including water, ash, protein, fat, carbohydrate, total sugar and total suspended solid (TSS).

The results showed a certain time variation did not affect the sensory characteristics of the product which showed a Fcount of 0.44 smaller than a F table of 2.71. But the results of the data analysis showed that the panelists gave the best response to the drink formulations with 9 minutes steaming treatment and 6 minutes boiling. Tests on the physical and chemical properties of the best formulas were subsequently performed which showed the sample drink formula of sweet corn powder with boiling 6 minutes had the highest value with a moisture content of 5.28%, ash content of 3.86%, protein content of 7.25%, fat content 9.63%, carbohydrate content 73.89% and total sugar content 102.05%. TSS test results show the longer boiling time increases the TSS level and the color of the solution. Meanwhile the physical test results on the color, viscosity, TPT, WHC, and particle distribution of the 6 minute boiling sample produce better values. While the pH of the steaming treatment is higher than boiling.

Key words: Sweet corn, powder formula drink, boiling, steaming