Physcal, Chemical and Organoleptic Characteristics of Edamame Drink by Addition of Maltodextrin and Sucrose
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ABSTRACT

Powder drink is a ready to eat food product in the form of a powder that dissolves easily in cold water. The purpose of this study was to determine the effect of maltodextrin and sucrose on the physicochemical and organoleptic characteristics of t edamame powder, as well as to find the best treatment. This study employed a Complete Randomized Factorial Design (CRFD) with two factors: maltodextrin concentration (0%, 2.5%, 5%, 7.5%, and 10%) and sucrose concentration (15%, 25%, and 35%). The production process of t powdered beverages began with peeling, sorting, washing, weighing, grinding, evaporation at 100°C for 27 minutes, crystallization at 60°C for 6 minutes, cooling, crushing, sieving, and packaging. The physical and chemical properties observed were yield, moisture content, protein content, solubility, and dissolution time. The organoleptic properties were color, aroma, and taste. The results showed that the addition of maltodextrin and sucrose significantly affected the physical, chemical, and organoleptic properties. The treatment of 10% maltodextrin with 35% sucrose resulted in an edamame powder drink with the following properties: solubility (99.65%), dissolution time (16 seconds), protein content (34.47%), moisture content (4.45%), and yield (36.43%). And a yellow-green color (3.40), a moderately strong edamame flavor (2.60), and a moderately strong edamame aroma (1.95)). with a level of preference for edamame powder brew in terms of color (3.68), slightly preferred aroma (3.36) and slightly preferred flavor (3.17)

Keywords: edamame, drink, crystallization, maktodextrin, sucrose