ABSTRACT

Nadia Bianca (01034190045)

UTILIZATION OF JUJUBE SYRUP AS GLUCOSE SYRUP SUBSTITUTE IN JELLY CANDY WITH DIFFERENT CARRAGEENAN AND PECTIN RATIO

Thesis, Faculty of Science and Technology (2022)

(xii + 66 pages; 24 figures; 12 tables; 51 appendices)

Classified as confectionery products, jelly candy highly dependent on the given gelling agent and sweetener. Research utilizing jujube in food product is rare while it has the potential to be made into syrup. Utilization of carrageenan and pectin as gelling agent has been done, but the effect of combination with jujube syrup were to be investigated. The objectives of this experiment were to study the effects of different jujube syrup:glucose syrup ratio (100:0, 75:25, 50:50, 25:75, and 0:100) and carrageenan:pectin ratio (1:2, 1:1, and 2:1) towards the physicochemical and organoleptic properties of jelly candy. Jujube syrup was able to be used as glucose syrup substitute up to 100%. The most preferred formulation belongs to the combination of 100:0 syrup ratio with 2:1 hydrocolloid ratio. It had the best characteristics such as 190.28g hardness value, 73.89 gumminess, 11.17% reducing sugar, and water activity of 0.748. Orange in color with °Hue value of 58.10, the organoleptic scoring test showed golden-brown color (5.37), slightly sweet taste (4.20), slightly not sour taste (3.85), not hard texture (2.97), and slightly not chewy texture (3.63). Organoleptic hedonic test showed liking on the sweetness, sour taste, and overall acceptance (4.99, 5.03, and 5.09, respectively), neutral towards color, hardness, and chewiness (4.30, 4.77, and 4.86, respectively).

Keywords : Carrageenan, jelly candy, jujube, pectin, syrup
Reference : 68 (1999-2022)