

ABSTRACT

Lip balm is a lip care product necessary to protect lips, as they are prone to UV exposure and dehydration, leading to chapped lips. Roselle flower petals contain anthocyanin pigments that form flavonoid compounds, which have the potential to absorb UV rays and act as antioxidants. The amino acids in roselle flowers are also known to contain SPF properties needed for lip balm production. Furthermore, dragon fruit peel is known to brighten lip color due to its anthocyanin content. Therefore, this study aims to determine the effectiveness and optimal formulation of utilizing dragon fruit peel and roselle flowers as an SPF lip balm product. The research methods included testing homogeneity, adhesion, spreadability, pH, and durability, analyzed descriptively and qualitatively. Meanwhile, organoleptic, hedonic, and SPF tests were analyzed quantitatively using a questionnaire from 30 respondents and processed with SPSS software and the SPF test formula. The results of the hedonic test from 30 respondents showed that formulation F3 was preferred over the other formulations in terms of color, texture, and aroma parameters. The highest SPF value was also obtained from F3, with a value of 31, meeting the sunscreen standard range of 15-30. Additionally, the results of physical stability tests, including spreadability, adhesion, pH, and organoleptic evaluations, met the standards for all three formulations. Thus, this study concludes that the lip balm formulations meet general lip balm standards, with F3 being the most suitable formula among the three tested formulations.

Keywords: lip balm, roselle flower, dragon fruit peel, SPF test