

FORMULATION OF SURUHAN LEAF POWDER SCRUB (*Peperomia pellucida* L. Kunth)

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ABSTRACT

Abstract. Rough, dull and dry skin conditions due to weather and external factors can be overcome by doing skin care. The COVID-19 pandemic has greatly affected the increase in the use of beauty and care products as the way to maintain health protocols through cleanliness of the body with the use of cosmetic scrubs. The development of cosmetic scrub technology which can be added with natural ingredients in the form of extracts, the use of natural ingredients are safer for the skin and practical in order to increase the benefits of the cosmetic scrub itself. The Chinese betel (*Peperomia pellucida* L. Kunth) is a plant of the Piperaceae family. Stem height reaches 20-40 cm, juicy, branched, round with a diameter of 5 mm, pale green. This plant is known as a wild plant that grows a lot on the outskirts of waterways or walls. Suruhan has a unique leaf shape that is heart-shaped with a pointed tip. This plant has grain-shaped flowers with a length of about 1 cm to 6 cm. Suruhan is a plant that is quite easy to cultivate. If you are interested in growing this plant, it is enough to sow the messenger seeds in the planting medium. This Chinese betel plant (*Peperomia pellucida* L.) contains alkaloids, flavonoids, saponins, tannins and triterpenoids (Rachmawati et al, 2018). It can be assumed that this plant can inhibit the growth of bacteria. This study aimed to: 1) determine the formulation of the cosmetic preparation of the bespoke leaf scrub, 2) find out the cosmetic characteristics of the suruhan leaf scrub, and 3) know the cosmetic quality of the bespoke leaf scrub (*Peperomia pellucida* L. Kunth). The research method used was the Research and Development (R&D) model by using operational variables, namely the independent variable and the dependent variable. The independent variable in this study was the use of suruhan leaf powder with a percentage formulation of 3%, 5% and 7%, while the dependent variable was the organoleptic properties of the scrub. The scrub characteristics obtained by 47% of respondents gave the opinion that the scrub sample had a slightly slippery texture and grains with a value of $\alpha < 0.05$. 58% of respondents strongly agree with the striking colour scrub (brown green) because it gave characteristics/identity to the scrub with a value of $\alpha < 0.05$. The scrub sample with the addition of 5% suruhan leaf extract showed a percentage of 55%, as standard for the physical properties of the scrub ($F_{crit} = 2.13 = 0.000848$); the addition of 5% suruhan leaf extract showed a percentage of 65%, the scrub gave a therapeutic and natural aroma as aroma standard ($F_{crit} = 2.13, = 1.23E-06$). The most preferred sample of suruhan leaf scrub was with the addition of 7% extract with a percentage of 60%. The interaction of suruhan leaf powder extract and the percentage of suruhan leaf powder extract affected the preference for the color of the scrub ($F_{crit} = 2.13, = 7.84E-07$). The 7% scrub sample had the highest percentage of 65% on the very like scale. Scrub formulas 1, 2, and 3 gave homogeneous results with an average pH of 5.5, the spreadability of the scrub was 5-7 cm with scrub stickiness more than 4 seconds.

Kata Kunci: *extract, formulation, leaf, messenger, scrub*