

Cowpea Kefir as A Functional Drink Sources of Calcium for Children

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ABSTRACT

Consumption of energy and protein intake as well as other micronutrients such as inadequate calcium and recurrent infectious diseases are factors that have a direct influence on the occurrence of stunting. One alternative source of calcium is cowpea kefir. This study aims to determine the characteristics and content of calcium levels in cowpea kefir by adding a starter of kefir seeds and cowpea juice. The experimental design used was a randomized block design (RAK) with 2 factors, namely starter of kefir seeds (5 g, 7 g, 9 g) and cowpea juice (275 ml, 300 ml, 325 ml). The analysis carried out included total LAB, TAT, pH, calcium levels, and organoleptics. The results showed that the addition of a starter of kefir seeds had no significant effect ($P>0.05$) on the total LAB, TAT, pH, calcium content, hedonic quality (color, texture, sour aroma), hedonic (color, aroma, texture, overall), but significantly ($P<0.05$) the hedonic quality (pandan aroma, sweet taste, sour taste) and hedonic taste. While the addition of cowpea juice had no significant effect ($P>0.05$) on the total LAB, calcium levels, hedonic and hedonic quality of all sensory attributes, but had a significant effect ($P<0.05$) on TAT and pH. The interaction of the two factors (kefir seed starter and cowpea juice) had no significant effect ($P>0.05$) on the total LAB, but had a significant effect ($P<0.05$) on TAT and pH. The best treatment was cowpea kefir with the addition of a starter of 7 gram of kefir seeds and 300 ml of cowpea juice, with the characteristics of Total BAL 5.4×10^4 CFU / ml; TAT 0.22%; pH 3.59; and calcium levels 0.188%.

Keywords : LAB, Calcium, Cowpea Kefir, Stunting