# Effects of Salt Reduction and the Inclusion of Seaweed (Kappaphycus alvarezii) on the Physicochemical Properties of Chicken Patties


## ABSTRACT

This study investigates the effect of salt reduction through the inclusion of seaweed (Kappaphycus alvarezii) on the physicochemical and sensory qualities of chicken patties. A control sample (1.5% salt and without seaweed) and four chicken patty formulations were used with two levels of salt (1% and 1.5%) and two levels of seaweed (2% and 4%). Adding seaweed improves water holding capacity and minimized cooking loss in reduced-salt patties. In addition, adding seaweed decreases the shrinkage of the diameter and thickness of chicken patties ($p > 0.05$). However, adding seaweed made the patties darker, as shown by lower L* values ($p > 0.05$). Additionally, the incorporation of seaweed significantly increased ($p < 0.05$) the hardness, chewiness, cohesiveness, and elasticity of patties. Reduced-salt chicken patties with the addition of 2–4% of seaweed showed lower extracted water than 1.5% salt chicken patties with seaweed ($p < 0.05$), indicating a higher water holding capacity. The sensory evaluation showed that the chicken patty with 1.5% salt and 4% seaweed had the highest overall acceptability. However, the overall acceptability of the chicken patties with 1% salt and 4% seaweed was significantly higher ($p < 0.05$) than the control. In conclusion, the addition of Kappaphycus alvarezii to reduced salt patties improved textural properties with acceptable taste profiles.