

**PHYSICOCHEMICALS PROPERTIES OF CHICKEN FEET GELATIN
INCORPORATED WITH OIL PALM LEAVES EXTRACT**

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ABSTRACT

PHYSICOCHEMICALS PROPERTIES OF CHICKEN FEET GELATIN INCORPORATED WITH OIL PALM LEAVES EXTRACT

Chicken feet contain a lot of collagen, which can be hydrolyzed into gelatin and soluble proteins. Since most manufactured plastics are non-biodegradable, they are progressively contributing to municipal waste accumulation and environmental calamity. Gelatin films have been modified with natural and synthetic materials to improve their mechanical, thermal, elasticity, flexibility, and oxygen and light barrier qualities. Therefore, in this study focuses on the physicochemicals properties of chicken feet gelatin incorporated with oil palm leaves extract. Gelatin films have good mechanical properties but have limitations. Problem unmodified gelatin in food packaging application the gel of gelatin have poor mechanical properties and hydrogen bonds can be easily broken on heating resulting gelatin gels thermally reversible. This research enhanced chicken feet gelatin with oil palm leaves extract. This research focuses on physicochemical properties of the film through several tests which are tensile strength test, solubility test, moisture content test and characterization using FTIR analysis. From this research, 20% concentration of oil palm leaves extract (OPLE) addition can increase the tensile strength of the film. Other than that, the gelatin film's water solubility reduced when OPLE concentrations increased. The result obtained shown that the film have low water solubility. Films with low water solubility were created to maintain structural stability and good barrier properties even in the presence of moisture. This research has shown that the oil palm leaves extract have their main role in improving chicken feet gelatin film.