## ABSTRACT

*Biopolymer-based active packaging is a strategic alternative in preserving perishable horticultural products, while reducing the environmental impact of conventional plastic waste. This study aims to evaluate the effect of tannic acid addition as an additive on the characteristics of chitosan/PVA bioplastic films. Films were synthesized using the solution casting method with variations in tannic acid concentrations of 0%, 1%, 5%, and 10%. Characterization was done through FTIR test, thickness, tensile strength, porosity, contact angle, water vapor transmission rate (WVTR), water absorption, biodegradability, and application as green chili packaging. The results showed that increasing tannic acid concentration increased the film thickness from 0.014 mm to 0.026 mm and tensile strength from 27.9 MPa to 62.4 MPa. The contact angle increased to 99.48°, while the porosity, WVTR, and water absorption decreased significantly, indicating improved barrier properties against moisture. Films without tannic acid degraded in 12 weeks, while films with tannic acid took up to 14 weeks. The application showed that CSPTA1 film (1% tannic acid) was most effective in maintaining the freshness of green chili peppers up to 21 days with a physiological weight loss of 29.46%, compared to unpackaged chili peppers that spoiled in 7 days.*



***Keywords****: bioplastics, chitosan, PVA, tannic acid, active packaging, green chilies*