SMART LABEL INDICATOR BASED ON ANTHOCYANIN EXTRACT FROM SUPER RED DRAGON FRUIT (*Hylocereus costaricensis*) SKIN TO MONITOR CHICKEN MEAT FRESHNESS LEVEL

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ABSTRACT

Chicken meat is a *perishable food*. The quality of chicken meat is largely due to poor handling from slaughter to marketing. The activity of bacteria that produce volatile amines causes changes in pH in chicken meat. Bacterial activity that we cannot see and control makes chicken customers sometimes restless to buy packaged cut chicken because they don't know whether the chicken is still fit for consumption or not. Today, smart packaging has emerged which is equipped with smart labels. The purpose of this study was to make a smart label for the anthocyanin extract of the Super Red Dragon Fruit Skin and determine its feasibility in determining the level of freshness of chicken meat. The best red dragon fruit peel extract was sample D4 obtained by maceration method using 96% ethanol as a solvent with 1M HCl acidified. The anthocyanin extract has a pH of 1.8 and anthocyanin content value of 104.722 g/L. Smart labels indicate the freshness level of chicken meat with a change in color, where a purple color indicates fresh chicken meat, a faded purple color indicates that the chicken meat is not fresh. The results of the feasibility of smart labels on pH stability experienced color changes in both acidic and alkaline conditions, but were more stable in acidic conditions.

Keywords: *Anthocyanin, Super Red Dragon Fruit Skin, Smart Label, Chicken Meat*