

**PENGARUH INJEKSI MINYAK ALPUKAT (*Persea americana*)
TERHADAP KUALITAS FISIK DAN SENSORIS
STEAK DAGING SAPI MELTIQUE**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh injeksi minyak alpukat (*Persea americana*) terhadap kualitas fisik dan sensoris *steak* daging sapi *meltique*. Parameter yang diamati pada penelitian ini meliputi kualitas fisik berupa pH, daya ikat air, tekstur, dan warna serta kualitas sensoris meliputi warna, aroma, rasa, tekstur, dan daya terima. Penelitian menggunakan daging sapi bagian *sirloin* dengan berat 150 g setiap perlakuan. Perlakuan terdiri dari daging tanpa injeksi, daging *meltique* komersial serta perlakuan injeksi emulsi antara minyak alpukat, air, dan *isolate soy protein* dengan level injeksi 55, 82,5, dan 110 g. Data hasil uji kualitas fisik dianalisis dengan Analisis Variansi Pola Searah, kemudian dilanjutkan dengan *Duncans New Multiple Range Test* (DMRT). Data uji sensoris dianalisis dengan uji Hedonik *Kruskal-Wallis*, kemudian dilanjutkan dengan uji *Mann-Whitney*. Injeksi minyak alpukat memberikan pengaruh ($P < 0,05$) pada nilai pH, daya ikat air, tekstur (*hardness*, *cohesiveness*, *springiness*, *gumminess*, dan *chewiness*) dan warna (*lightness*, *redness*, dan *yellowness*). Hasil kualitas fisik terbaik pada daging dengan level injeksi pada 110 g dengan nilai pH 6,09, daya ikat air 28,42%, *hardness* 18,79 N, *cohesiveness* 0,58, *springiness* 0,63, *gumminess* 10,79 N, *chewiness* 6,76 N, *lightness* 51,00, *redness* 11,97, dan *yellowness* 15,50. Injeksi minyak alpukat memberikan pengaruh ($P < 0,05$) pada warna, aroma, rasa, tekstur, dan daya terima. Kualitas sensoris terbaik pada level injeksi pada 110 g dengan nilai warna 6,98, aroma 7,03, rasa 7,15, tekstur 7,38, dan daya terima 7,10. Kesimpulan penelitian ini menunjukkan bahwa injeksi minyak alpukat terhadap kualitas fisik dan kualitas sensoris terbaik terdapat pada level injeksi 110 g karena meningkatkan pH, *springiness*, *lightness*, dan *yellowness*, menurunkan daya ikat air, *hardness*, *cohesiveness*, *gumminess*, *chewiness*, dan *redness* serta menghasilkan kualitas sensoris terbaik.

Kata kunci : *Steak*, Daging sapi, *Meltique*, Minyak alpukat, Emulsi, Injeksi, Kualitas fisik, Kualitas sensoris

THE EFFECT OF AVOCADO OIL (*Persea americana*) INJECTION ON THE PHYSICAL AND SENSORY QUALITY OF MELTIQUE BEEF STEAK

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ABSTRACT

This research aimed to determine the effect of avocado oil (*Persea americana*) injection on the physical and sensory quality of meltique beef steak. The parameters observed in this research included physical quality, such as pH, water-holding capacity, texture, and color, as well as sensory quality, including color, aroma, taste, texture, and acceptability. The research utilized sirloin beef, with each treatment consisting of 150 g of beef. The treatments included non-injected beef, commercial meltique beef, and emulsified injection treatments that combined avocado oil, water, and isolated soy protein with injection levels of 55, 82.5, and 110 g. The physical quality test data were analyzed using One-Way Analysis of Variance (ANOVA), followed by Duncan's New Multiple Range Test (DMRT). Sensory test data were analyzed using the Kruskal-Wallis hedonic test, followed by the Mann-Whitney test. The injection of avocado oil significantly affected ($P < 0.05$) pH, water-holding capacity, texture (hardness, cohesiveness, springiness, gumminess, and chewiness), and color (lightness, redness, and yellowness). The best physical quality results were observed in meat injected at level 110 g, with a pH value of 6.09, water-holding capacity of 28.42%, hardness of 18.79 N, cohesiveness of 0.58, springiness of 0.63, gumminess of 10.79 N, chewiness of 6.76 N, lightness of 51.00, redness of 11.97, and yellowness of 15.50. The injection of avocado oil also significantly affected ($P < 0.05$) color, aroma, taste, texture, and acceptability. The best sensory quality was achieved at injection level 110 g, with a color score of 6.98, an aroma score of 7.03, a taste score of 7.15, a texture score of 7.38, and an acceptability score of 7.10. The conclusion of this research indicates that the best physical and sensory quality of the meat was obtained at injection level 110 g, as it increased pH, springiness, lightness, and yellowness while reducing water-holding capacity, hardness, cohesiveness, gumminess, chewiness, and redness, ultimately producing the best sensory quality.

Keywords : Steak, Beef, Meltique, Avocado oil, Emulsion, Injection, Physical quality, Sensory quality