

INTISARI

PENGARUH IRADIASI SINAR GAMMA TERHADAP SIFAT SENSORIS DAN NILAI GIZI SIDAT ASAP, *UNAGI SHIRAYAKI* DAN *UNAGI KABAYAKI*

Penelitian ini bertujuan untuk mengetahui pengaruh perlakuan iradiasi sinar gamma terhadap komposisi gizi, pH dan mutu sensoris tiga produk olahan sidat, yaitu sidat asap, *unagi shirayaki*, dan *unagi kabayaki* dalam kemasan vakum. Proses iradiasi dilakukan menggunakan sumber radioaktif Cobalt-60 dengan variasi dosis 0 kGy, 1,5 kGy, 3 kGy, dan 5 kGy. Parameter yang diamati meliputi kadar air, protein, lemak, dan abu, pH, uji warna serta uji skoring untuk menilai mutu sensoris (kenampakan, aroma, rasa, dan tekstur). Hasil penelitian menunjukkan bahwa perlakuan iradiasi gamma hingga dosis 5 kGy tidak memberikan pengaruh signifikan terhadap kandungan gizi (air, protein, lemak, dan abu) maupun nilai pH pada ketiga produk olahan sidat ($p > 0,05$). Namun, perlakuan dosis tinggi cenderung menurunkan penerimaan panelis terhadap mutu sensoris. Secara keseluruhan, perlakuan kontrol tanpa iradiasi (0 kGy) memberikan mutu sensoris terbaik, sedangkan perlakuan dengan dosis 3 kGy dipertimbangkan sebagai dosis iradiasi yang paling layak karena dapat mempertahankan kandungan gizi dan mutu sensoris yang masih dapat diterima panelis.

Kata kunci : Iradiasi gamma, sidat asap, *unagi shirayaki*, *unagi kabayaki*, proksimat, kemasan vakum

ABSTRACT

EFFECT OF GAMMA IRRADIATION ON THE SENSORY PROPERTIES AND NUTRITIONAL VALUE OF SMOKED EEL, UNAGI SHIRAYAKI, AND UNAGI KABAYAKI

This study aimed to evaluate the effect of gamma irradiation on the nutritional composition, pH, and sensory quality of three vacuum-packaged eel products, namely smoked eel, unagi shirayaki, and unagi kabayaki. Gamma irradiation was carried out using a Cobalt-60 source at doses of 0 kGy, 1.5 kGy, 3 kGy, and 5 kGy. The evaluated parameters included moisture, protein, fat, ash, pH, color, and sensory attributes (appearance, odor, taste, and texture). The results indicated that gamma irradiation up to 5 kGy did not significantly affect the nutritional composition (moisture, protein, fat, and ash) or pH of the three eel products ($p > 0.05$). However, higher irradiation doses tended to decrease panelists' acceptance of sensory quality. Overall, the non-irradiated control (0 kGy) provided the best sensory quality, whereas irradiation at 3 kGy was considered the most feasible dose because it maintained nutritional composition and sensory quality at levels still acceptable to the panelists.

Key Words : Gamma irradiation, smoked eel, *unagi shirayaki*, *unagi kabayaki*, proximate composition, vacuum packaging.