

PHYSICOCHEMICAL PROPERTIES OF SOY- AND PEA-BASED IMITATION

SAUSAGE PATTIES

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ABSTRACT

The objective of this thesis is to better understand how changing levels of soy or pea protein isolates (SPI)(PPI) (3%, 6% and 9%) and king oyster mushrooms (KOM) (0%, 3.5% and 7%) affect the physicochemical properties of imitation sausage patties using textured soy or pea proteins as the main base ingredient. Altering the SPI or PPI level did not decrease the cooking yield; however, KOM did lower the yield. Lightness and yellowness of the meatless sausage were attributed to the addition of SPI or PPI but these properties were not affected by KOM. Combining KOM and a high level of soy or pea protein created redness and showed the greatest value. Textural profile parameters, excluding adhesiveness, showed higher value when both 3.5% and 7% KOM were combined with 9% SPI; when 3% PPI mixture without KOM. Water activity, pH value and cooking shrinkage did not differ significantly on dependent interactions. SPI or PPI did not affect shrinkage percentage. Water holding capacity decreased as the amount of KOM and SPI or PPI increased.