

## Pembuatan daging sintetik berbahan baku gluten terigu tepung kacang merah dan jamur tiram putih pleurotus ostreatus = Manufacture of synthetic meat derived from gluten red bean flour and white oyster mushroom pleurotus ostreatus

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### Abstrak

[Daging sintetik merupakan salah satu alternatif pilihan makanan yang dapat menggantikan daging hewani dengan tingkat protein yang tidak kalah tinggi. Kandungan protein yang tinggi dapat diperoleh dari berbagai bahan organik seperti gluten dari tepung terigu, jamur tiram putih (*Pleurotus ostreatus*), dan tepung kacang merah. Pembuatan daging sintetik dilakukan dengan variasi bahan baku, yaitu tepung jamur dan jamur yang dicincang; serta variasi konsentrasi. Penentuan jenis daging sintetik terbaik dilakukan dengan analisis proksimat, asam amino, dan organoleptik. Daging sintetik terbaik diperoleh dari kombinasi 70% gluten, 15% tepung kacang merah, dan 15% tepung jamur tiram putih dengan kadar protein sebesar 29,7%; kadar air 48,05%; kadar abu 1,680%; kadar lemak 2,480%; dan kadar karbohidrat 18,05%. Terdapat 15 jenis asam amino yang terkandung dalam daging sintetik, diantaranya adalah aspartat, glutamat, serin, glisin, histidin, arginin, threonin, alanin, prolin, valin, tirosin, isoleusin, leusin, phenylalanin, lisin. Sedangkan hasil pengujian organoleptik menunjukkan bahwa responden menilai kemiripan daging sintetik dengan daging hewani mengenai rasa sebesar 67,5%; kekenyalan 66,0%; aroma 73,5%; dan wujud 90,5%. Synthetic meat is one of the alternative food choices that can replace animal meat with the same amount of protein content. High protein content can be obtained from a variety of organic materials such as gluten from wheat flour, white oyster mushroom (*Pleurotus ostreatus*), and red bean flour. In this research, manufacturing process of synthetic meat is divided into two types, the first type use mushroom flour and the second type use chopped mushroom as its raw material. Every type of synthetic meat manufactured in different variety of concentration. The best synthetic meat is determined by using proximate analysis, amino acid analysis, and organoleptic analysis. The best synthetic meat derived from a combination of 70% gluten, 15% red bean flour and 15% of white oyster mushroom flour with a protein content of 29.7%; moisture content of 48.05%; ash content of 1.680%; fat content of 2.480%; and carbohydrate content of 18.05%. There are 15 types of amino acids contained in the synthetic meat, such as aspartate, glutamate, serine, glycine, histidine, arginine, threonine, alanine, proline, valine, tyrosine, isoleucine, leucine, phenylalanin, lysine. While the organoleptic test results showed that the respondents assess similarity synthetic meat with animal flesh about the taste of 67.5%; elasticity of 66.0%; scent of

73.5%; and form of 90.5% . ash content]