

# ***The Effect of Fermented Palm Kernel Meal on The Relative Weight of Immune Organs in Joper Chickens (Jowo Super)***

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## ***ABSTRACT***

*Joper chickens are the result of crossbreeding between male native chickens and female laying hens with the aim of obtaining faster meat production compared to ordinary native chickens. Joper chicken productivity is influenced by the quality of the ration which plays a role in improving growth and the body's immune system. One potential alternative as a protein source is BIS (Palm Kernel Meal). This study aims to determine the effect of providing BIS fermented with sheep rumen fluid can potentially increase the percentage of relative weight of immune organs that impact the immune resistance of Joper chickens. The study was conducted from May to November 2024 in the Integrated Agricultural Development pen and in the Feed Production Laboratory of the Jember State Polytechnic. This study used a Completely Randomized Design (CRD) with 5 treatments and 4 replications. The parameters observed included: Relative weight of the bursa of Fabricius, Relative weight of the thymus and Relative weight of the spleen. The results of the study showed that the effect of providing BIS without fermentation and fermented BIS on the immune organs in Joper chickens had no significant effect ( $P > 0.05$ ) on the relative weight of the bursa of Fabricius by 0.12-0.14%, the thymus by 0.36-0.52% and the spleen by 0.16-0.23%. The conclusion of this study is that the provision of fermented BIS with sheep rumen fluid on the relative weight of the immune organs of Joper chickens did not provide a significant effect, so the treatment given has not been able to affect these immune organs. Nevertheless, fermented BIS still has the potential to be used as an alternative feed ingredient without causing negative impacts on the immune system of Joper chickens.*

**Keywords:** *: Joper chicken, palm kernel meal, fermentation, immune organs*