

## OH5) Influence on growth performance and blood metabolites after fermented fish meal supplementation to weaning pigs (1)

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### 1. 서론

Newly weaned pigs are very sensitive to the quality of their feed. The wrong feed can result in a lower feed intake and a reduced growth rate due to the incomplete development of their digestive system (Zhang et al., 2005). At this point in their development, pigs require a good source of protein and amino acids in their diets and there are increasing concerns about finding the most practical protein source for newly weaned pigs that will have the greatest positive influence on the function and structure of their digestive tract. Fish meal is a very digestible protein source, with a high mineral content and low fiber, that is commonly used to stimulate feed intake (Jones et al., 2015).

The objective of our study was to further evaluate the effect of dietary supplementation with fermented fish meal on growth performance and blood metabolites in weanling pigs.

### 2. 재료 및 방법

A total of 180 weaned pigs ((Landrace × Yorkshire) × Duroc mixed sex; weaned at 21±1d age) with initial body weight of 6.0±0.2 kg were randomly distributed among 3 dietary treatments (0%, 0.2%, and 0.5% fermented fish meal) in 3 replicate pens (20 weanling pigs per pen) in a completely randomized trial over 3 weeks. Growth performance and blood metabolites in weanling pigs was determined. All data were subjected to ANOVA using the GLM procedure of the SAS package program. The IML procedure was used to develop linear and quadratic coefficients for data with unequal spacing. Tukey's test was also used to identify treatment means in order to compare the difference between means. Significance of treatment effects was declared at P<0.05.

### 3. 결과 및 고찰

Addition of fermented fish meal to weanling pig diets had a linear effect (P<0.05) on average feed intake and a quadratic trend on final body weight, average daily gain, and gain:feed ratio throughout the whole period (but not initial body weight). Hct, monocyte, IgG, and blood urea nitrogen (BUN) levels responded linearly and quadratically (P<0.05) with increasing levels of dietary fermented fish meal. Moreover, we found a linear correlation between the diets and lymphocyte and insulin levels (P<0.05) among the different dietary treatments. In contrast, RBC, WBC, Hgb, IGF-1, and glucose levels were not affected by diets with different levels of fermented fish.

### 4. 참고문헌

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