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**Field Study: Evaluation of GABA Feed Supplement in Broiler**

Metta Makhanon1\*, Panudda Eamsa-ard2, Akkrapon Pansrinakorn3, Netchanok Malingam4, Rachen Khusakul5

[1metta.makhanon@gmail.com](mailto:1metta.makhanon@gmail.com) , Animal Health Consultant, Freelance, Thailand

2 Pairatgroup Food Co., Ltd., Thailand

3 Vet Agritech Co., Ltd., Thailand

4 Bestfarm Co., Ltd., Thailand

5 Zhumadian Huazhong Chia Tai Co., Ltd., China

**Abstract:**

**Background/Objective:** GABA (α-aminobutyric acid), non-protein amino acid, has been used as the anti-stress and the promotion of mucosal immunity and intestinal microbiota. This study aims to evaluate the growth promoter efficacy of GABA in a broiler farm in Thailand. The non- antimicrobial growth promotor will be one of the alternatives to antimicrobial (ATA) to reduce AMR (antimicrobial resistant) in the farm industry.

**Methods:** Ten broiler houses contained 27,000-28,000 birds/house, were divided into two groups, Control (6 houses) and GABA supplement (4 houses) groups. Birds in GABA group received 100 mgGABA/kg feed during grower period (3-5 weeks old). Weight, feed intake, and loss of each house were recorded, weekly, until the slaughtered days (42-45 days old). All data were analyzed by t-test at *P*<0.05.

**Results:** Final weight, weight gain, and ADG (g/day) of the GABA supplement group are significantly higher than control group. The results are illustrated in table 1.

**Table 1** The growth performance of each bird

|  |  |  |  |
| --- | --- | --- | --- |
| Growth Performance | GABA | Control | *P*-value |
| Weight In (g) | 48.5±5.07 | 47.33±5.05 | 0.730 |
| Weight out (g) | 2,800±0 | 2,633.3±40.8 | <0.001 |
| Days to slaughter | 43.5±1.73 | 43.67±0.52 | 0.826 |
| Weight Gain (g) | 2,751.5±5.07 | 2,586.0±42.65 | <0.001 |
| ADG (g/d) | 63.38±2.44 | 59.23±1.43 | 0.010 |
| Feed Intake (g/d) | 112.31±3.0 | 106.3±7.76 | 0.184 |
| FCR | 1.76±0.03 | 1.80±0.14 | 0.773 |

**Conclusion:** GABA supplement in broiler feed at 100 mg/kg shows the efficacy of non-antimicrobial growth promotor from this study. The further study should be conducted for other species of food animals to expand more benefit from this ATA.

**Keywords:** GABA, broiler, supplement