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(Article begins on next page)

## Interaction between dietary ß-alanine and valine supplemented to broilers diet

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The objective of the present study was to evaluate the interaction between dietary β-alanine and valine supplemented to broilers diet. A total of 504 one day old female broilers (Ross 708, 37.3±0.1 g) were randomly assigned to 42 pens (12 chicks/pen). Six blocks of seven pens were made in a randomized 3×2 block design. Each block received a starter (days1-21) and finisher (days22-42) diet with one out of three valine levels (NV: 0.85%, HV: 0.89%, VHV: 0.93% digestible valine) and no (CON) or 500mg/kg β-alanine (B-ALA). At pen level average daily feed intake (ADFI) and average daily gain (ADG) was calculated. At day 42 broilers were weighed and slaughtered. Statistical analyses (SPSS 22.0) was performed using a general linear model with valine (NV, HV, VHV) and β-alanine (CON, B-ALA) as fixed factors and initial pen weight as covariate. During the finsher phase, ADFI tended to be higher for B-ALA (CON 131.8±5.9, B-ALA 136.0±7.6, *P*=0.083) and ADG tended to be lower for HV-B-ALA in comparison to the other groups (*P*=0.078). Chilled carcass weight of B-ALA (1520±155) was significantly higher than for CON carcasses (1492±156, *P*=0.036). Slaughter yield was higher for NV-B-ALA (70.8±0.1%) compared to the other groups (*P*=0.003). Results indicate that β-alanine supplementation improved slaughter performance of broilers. Limited interaction with excess valine was observed, but it would be worthwhile to test the effect of β-alanine in valine defficient diets.