Effect of feed content and source of vitamin D on bone mineralization and performance of broilers

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Table 1. Vitamin D supplementation level (IU/kilogram of diet) and vitamin D3 to 25-OH-D3 ratio in the 9 dietary treatments

<table>
<thead>
<tr>
<th>Vit D level</th>
<th>D3 to 25D3 ratio</th>
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<tbody>
<tr>
<td></td>
<td>100% D3</td>
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<tr>
<td>Low</td>
<td>2000</td>
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<tr>
<td>Medium</td>
<td>4000</td>
</tr>
<tr>
<td>High</td>
<td>8000</td>
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Figure 1A. FCR between d1 and d21 across the 9 dietary treatments

Figure 1B. Ash weight (g/kg of BW) across the 3 levels of dietary vit D supplementation

Discussion

- Vitamin D source or level of supply did not affect performance parameters other than an increased FCR in birds receiving the Low diet with D3 as the sole source of vitamin D supply.
- Mineralization increased at levels of supplementation beyond the EU limit irrespective of the source of vitamin D supply.
- Requirements for vitamin D did not differ between male and female breeders.

Conclusion

Offering diets with more than 5000 IU/kg is required for maximal bone mineralization in commercial diets adequate in Ca and P during the grower period.

PROHEALTH consortium

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