

THE GUINEA-FOWL BROILER REQUIREMENT FOR PHOSPHORUS

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Five groups of eighty guinea fowl chicks (2 replicates of 40 birds) were fed diets containing 0.23, 0.28, 0.34, 0.39 and 0.45 per cent available phosphorus from hatching till 12 weeks of age. All diets were balanced and contained 3 000 kcal ME/kg and 24 per cent proteins.

As measured by live weight gains the phosphorus requirement was found to be 0.39 p. 100 during the first 6 weeks of age and 0.34 p. 100 between 6 and 12 weeks. Therefore, since the calcium level in the diets was rather high (1.1 p. 100) the requirement may even be lower.

**EFFECTS OF DIETARY LEVELS OF CHLORIDE,
SODIUM AND POTASSIUM ON GROWTH RESPONSE
AND CARTILAGE ABNORMALITIES IN CHICK**

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In a factorial model, three levels of chloride (10-25 and 40 mEq/100 g) and three levels of sodium plus potassium (20-35 and 50 mEq/100 g) have been used in this experiment. In each diet, the Na/K ratio was 1.

Mortality between 0 and 4 weeks increased with the chloride level but was independant of Na + K.

Growth response decreased when chloride level increase in the diet and the effect was partly corrected when the level of Na + K corrected the imbalance between anion and cation.

Cartilage abnormalities were closely related to the chloride level and hence to the acid base balance of the blood.

We conclude that optimal growth response is compatible with low chloride level in the diet as far as the cation content is adjusted to the anion content. Moreover, this situation is the best for low cartilage abnormalities.