

Effects of the Level of Dietary Rice Bran with or without Phytase, on Performance and Egg Parameters of Japanese quail

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ABSTRAC: *Cost of quail feed formulations can be reduced substantially by using cheap cereal by-products such as rice bran (RB) at higher levels. The objective of this study was to determine the maximum inclusion levels of dietary RB with or without exogenous phytase, for laying Japanese quail. In a complete randomized design in a 3 x 2 factorial arrangement, 108 quails in 36 cages received six experimental diets ad libitum from 8 to 15 week. Experimental factors were three dietary RB inclusion levels (20, 30 and 40%) and two phytase levels (0 and 1000 FTU/kg). The level of dietary RB, phytase supplementation and their interaction had no significant effects on live weight or feed intake. The total egg production of the quail fed 40% RB was significantly lower than that of birds fed 20 and 30% RB. Laying rate of the quail fed 40% RB was significantly lower than those of the quail fed 20 or 30% RB from 6th week onwards. By the eighth week, even dietary 30% RB resulted in significantly lower egg laying rate compared to the quail fed 20% RB. Feed conversion ratio (FCR) of the birds fed 40% RB was significantly higher than those of 20 or 30 % RB fed. Adverse effects of 30 or 40% RB on production parameters such as egg number, egg mass and FCR were not mitigated by the supplemental phytase. It is concluded that RB could be included up to 20% in the diets of Japanese quail without negative effects on feed cost and production performance. Even with supplemental phytase inclusion of 30% or more RB has adverse effects on the same parameters.*

Keywords: *Egg, feed, performance, quail, rice bran*

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