The nutritional effect of Moringa oleifera fresh leaves as feed supplement on Rhode Island Red hen egg production and quality.

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Abstract:

This study aimed to evaluate the potential of Moringa oleifera fresh leaves (MOL) as feed supplement on the performance and egg quality of Rhode Island Red (RIR) hens under the tropical conditions of Yucatan, Mexico. Forty-eight RIR hens were allocated in 12 floor pen replicates each with four birds. Thereafter, the replicates were divided into three groups which were corresponded to ad libitum feed (control), ad libitum feed supplemented with MOL T1 (AL + MOL) and restricted feed amount (20% lower than control) with MOL T2 (RCD + MOL), respectively. T1 (AL + MOL) had higher egg laying rate (71.4% versus 66.6%), higher daily egg mass production (45.4 versus 41.9 g/day), lower feed intake (121.3 versus 127.5 g/day) and better feed conversion ratio (2.8 versus 3.2 g feed:g egg) versus control. T2 (RCD + MOL) had lower values of body weight, egg laying rate, egg weight and egg mass, and recorded better feed conversion ratio than the control group. The control group recorded a higher percentage of pecked eggs versus T1 and T2 (6.5% versus 1.2% and 2.0 %). Similar intake of MOL (3.1 and 3.4 g DM/day) was recorded in T1 (AL + MOL) and T2 (RCD + MOL). Yolk color was improved significantly in T1 (AL + MOL) than both control and T2 (RCD + MOL), while T2 (RCD + MOL) had eggs with lower yolk and higher albumen percentages than the other two ad libitum groups. The results suggest that MOL could be used successfully as sustainable tropical feed resource for RIR hens.

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