

# AJAS2016\_T.M.Wardiny

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**Submission date:** 30-May-2023 09:32AM (UTC+0700)

**Submission ID:** 2104929108

**File name:** AJAS2016\_T.M.Wardiny.docx (13.72K)

**Word count:** 265

**Character count:** 1455

## The Use of *Morinda citrifolia* Leaves and Fruits for Lowering Cholesterol Contents of Laying Eggs

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### Abstract

The objective of this research was to evaluate the level of *Morinda citrifolia* (MC) leaves and fruits into a non-corn-based diet performance and egg quality of laying hens. One hundred and forty seven laying hens were used and divided into seven treatments with three replicates, in which each replicate consisted of seven laying hens. Allocation of dietary treatments into experimental units was based on a completely randomized design. The treatments were: control diet (no MC), diet with 3% MC leaf meal, diet with 6% MC leaf meal, diet with 9% MC leaf meal, diet with 3% MC fruit juice, diet with 6% MC fruit juice, and diet with 9% MC fruit juice. Results revealed that sexual maturity, feed conversion, egg production, egg weight and egg yolk cholesterol were significantly influenced by dietary treatments of both MC leaves and fruits ( $P < 0.05$ ). Feed intake was not significantly different for all dietary treatments. Among all MC diets, treatment of 9% leaf meal in diet showed the best performance and egg quality; the treatment led to the highest vitamin A and the lowest cholesterol contents of the eggs. It is concluded that MC leaves and fruits may be used to improve egg quality of laying hens.

**Key Words:** Cholesterol, Egg Yolk, laying Hens, *Morinda citrifolia*, Vitamin A

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