

**THE EFFECT OF CONTAMINATED FEED BY AFLATOXINS WITHIN  
40 DAYS ON THYMUS ANATOMY AND HISTOPATHOLOGY OF  
STARTER LAYING HENS**

**Rachella Christy**

**ABSTRACT**

The aim of this study was to determine the effect of contaminated feed by aflatoxin on thymus anatomy of starter laying hens. Thirty six of laying hens of day old chicks (DOC) were used on this research and divided into two groups (P0 and P1). P0 (control group) were fed by 100% starter CP 521 basal diet and P1 (treatment group) were fed by 80% CP 524 basal diet + 20% contaminated feed. Treatment of contaminated feed had been given for 40 days from day 20<sup>th</sup> until day 60<sup>th</sup>, started after the DOC adapted for 20 days. At the end of the each treatment period, chickens were euthanized to weigh and histopathological examination was carried out at day 20<sup>th</sup>, 40<sup>th</sup>, and 60<sup>th</sup>. Thymus weight based on time were significantly reduced, but were not significantly reduced between each group. This reduction of thymus weight was caused by thymus involution progress. Microscopic observation on the nuclear debris and congestion showed that P0 were not significantly different, but P1 were significantly different ( $p < 0.05$ ) at day 40<sup>th</sup> and 60<sup>th</sup>. The conclusion of this study was the dosage of 20% contaminated feed by aflatoxins were not affected to thymus weight but it already shows a damage to thymus histopathology.

**Keywords:** Aflatoxins, thymus, laying hens.