

The Effects of Red Onion Extract (*Allium ascalonicum* L.) in the Pulmonary Histopathological Lesions of Layer Chickens at 47 Days Old Raised in the Battery Cage

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Abstract : Layer farms in Indonesia have still obstacles to increasing their productivity, especially due to poultry diseases. The red onion (*Allium ascalonicum* L.) is a plant that contains flavonoid and saponin. Flavonoid is useful as anti-inflammatory and antioxidant while saponin is useful as antivirus, anti-inflammatory, antifungal, and immunomodulator. This study aimed to know and determine the effect of onion extracts to pulmonary histopathological lesions in layer chickens which raised in the battery cage. This study used eighteen layer chickens at seventeen days old. The eighteen layer chickens were divided into three groups of six each, namely without administration of red onion extract (Group I), with administration red onion extract through drinking water (Group II) and with administration red onion extract peroral (Group III). Every ten days, six chickens were necropsied and then the lungs were processed for histopathological preparations and stained with routine hematoxylin and eosin. The results showed that the lungs of the Group I had severe congestion and diffuse hemorrhages. In Group II, lungs had moderate congestion and hemorrhages. In group III, lungs had mild congestion and hemorrhages. It is concluded, that red onion extract apparently has reduced the lungs lesions in layer chickens.

Keywords : histopathological lesions, layers, lungs, poultry diseases, red onion extract

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