

THE POTENTIAL SUPPLEMENTATION OF KCL AND NaHCO<sub>3</sub> ON  
HISTOPATHOLOGY OF CHRONIC HEAT- STRESSED BROILER'S HEART

**Rangga Pillar Rachmawan**

**ABSTRACT**

The purpose of this study was to know the potential of potassium chloride and sodium bicarbonate supplementation as thermotolerance agent on heart of chronic heat stressed broiler. Thirty broilers with 3 weeks age divided into 5 different groups (n = 6) and were separated into two different chamber (A and B). One group (control/P0) was caged at low temperature (21-23°C) as chamber (A), and the others (P1; P2; P3; P4) were caged at high temperature (37 °C) chamber (B). Group P1 was only with water, groups P2, P3 and P4 administrated respectively with 1,5 % KCl, 0,5% NaHCO<sub>3</sub>, and combination both of them. Later fifteen days of treatment all broiler were examined for heart macropathology and histopatology examination. Collected data for heart weight were analysed with Anova test and the data for histopathology changes were analysed with Kruskal-wallis test. This Study showed supplementation of 1,5 % KCl, 0,5% NaHCO<sub>3</sub>, and combination both of them failed to inhibit the changes of liver pathology on chronic heat-stressed broiler.

**Keyword :** *Heat stress; Potassium chloride; Sodium bicarbonate; heart*