PENGARUH PEMBERIAN PROBIOTIK BAKTERI ASAM LAKTAT INDIGENOUS TERHADAP ORGAN PENCERNAAN PADA PUYUH JEPANG JANTAN

Fuqoro Bagas Mandanu

10/301189/PT/05845

INTISARI

Penelitian ini dilakukan untuk mengetahui efek suplementasi probiotik bakteri asam laktat (BAL) terhadap organ pencernaan yaitu crop, proventrikulus, gizzard, hati, dan usus halus. Sembilan puluh enam *day old quail* (DOQ) yang tidak divaksinasi dibagi secara acak ke dalam empat kelompok perlakuan probiotik BAL (kultur campuran yang mengandung tiga strain BAL dengan perbandingan yang sama yaitu *Lactobacillus murinus* (Ar3), *Streptococcus thermophilus* (Kd2), dan *Pediococcus acidilactici* (Kp6)) yang diberikan secara oral. Perlakuan terdiri dari (T0) satu kelompok tanpa suplementasi dan tiga kelompok dengan dosis probiotik 10^7 (T1), 10^8 (T2) dan 10^9 CFU/ml/ekor/hari (T3) dalam perbandingan yang sama. Semua kelompok perlakuan diulang sebanyak empat kali masing – masing terdiri enam ekor puyuh. Pakan diformulasikan tanpa antibiotik. Pada akhir percobaan, 32 puyuh disembelih untuk mendapatkan data berat crop, berat proventrikulus, berat gizzard, berat hati, berat usus dan panjang segmen usus meliputi duodenum, jejunum, ileum, dan sekum. Data dianalisis dengan analisis variansi rancangan acak lengkap pola searah dilanjutkan *Duncan Multiple Range Test* (DMRT). Hasil penelitian menunjukkan terbukti bahwa berat usus halus dan panjang usus halus meliputi jejunum, ileum, dan sekum berbeda nyata dipengaruhi oleh probiotik Bakteri Asam Laktat (BAL) ($P<0,05$). Berat crop, proventrikulus, gizzard, hati, dan panjang duodenum tidak menunjukkan perbedaan yang nyata.

Kata kunci : Puyuh jepang jantan, Bakteri asam laktat (BAL), Organ pencernaan.

THE EFFECT OF PROBIOTICS LACTIC ACID BACTERIA SUPPLEMENTATION ON GASTROINTESTINAL ORGAN OF MALE JAPANESE QUAIL

Fuqoro Bagas Mandanu

10/301189/PT/05845

ABSTRACT

This study was conducted to investigate the effect of probiotic lactic acid bacteria (LAB) on weight of crop, proventriculus, gizzard, length and weight of small intestine, (duodenum, jejunum, ileum, caecum) of male laying quail. Ninety six day old of unvaccinated quails were assigned randomly into four treatment groups of LAB probiotics orally supplementation. The mixed culture of probiotics containing three strains namely *Lactobacillus murinus* (Ar3)*, Streptococcus thermophilus (Kd2),* and *Pediococcus acidilactici* (Kp6). The treatments were consisted of (T0) one group of unsupplemented birds as control and three groups of supplemented quails as much as 10^7 (T1), 10^8 (T2) and 10^9 CFU/ml/bird/day (T3) respectively. All of treatment groups were replicated into four groups, and six birds each. The antibiotic-free diet was formulated and provided ad libitum*.* At the end of experiment, 24 the euthanasia of quail were measured to obtain consisted of weight of crop, proventriculus, gizzard, liver, intestine, and length of small intestine segment (duodenum, jejunum, ileum and ceacum). The data were analyzed by analysis of variance followed by Duncan's Multiple Range Test (DMRT). The result evidenced that the intestinal weight, intestinal length, jejunum, ileum, and cecum were significantly affected by supplementation of Lactic Acid Bacteria (LAB) probiotics ($P<0,05$). However weight of crop, proventriculus, gizzard, liver, and length of duodenum not significantly affected by the Lactid Acid Bacteria (LAB).

Key word: male japanese quail , Lactic Acid Bacteria (LAB), gastrointestinal organ