

PENGARUH *Bacillus subtilis*, MANNAN OLIGOSAKARIDA DAN KOMBINASI KEDUANYA TERHADAP PERFORMAN AYAM BROILER

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian *Bacillus subtilis*, mannan oligosakarida (MOS) dan kombinasi keduanya terhadap performan ayam broiler. Sebanyak 75 ekor ayam broiler *strain* Lohmann dipelihara selama 14 hari dengan 5 kelompok perlakuan yang berbeda. Setiap perlakuan diulang 3 kali, masing-masing terdiri dari 5 ekor ayam. Lima perlakuan tersebut yaitu P1 (tanpa antibiotik), P2 (antibiotik zink basitrasin 50 ppm), P3 (*Bacillus subtilis* 10^7 /ml), P4 (MOS 1mg/ml) dan P5 (*Bacillus subtilis* 10^7 /ml + MOS 1mg/ml). *B. subtilis*, MOS dan kombinasi keduanya diberikan melalui air minum. Pakan dalam penelitian ini mengandung CP 19% dan ME 3100 kcal/kg dan diberikan kepada ayam secara *ad libitum*. Parameter yang diamati yaitu konsumsi pakan, pertambahan berat badan dan konversi pakan (FCR) ayam broiler. Data yang diperoleh diuji menggunakan analisis variansi rancangan acak pola searah, selanjutnya diuji dengan *Duncan's New Multiple Range Test* (DMRT). Hasil yang diperoleh menunjukkan perlakuan tersebut tidak berbeda nyata ($P < 0,05$) terhadap konsumsi pakan, namun menunjukkan perbedaan yang nyata ($P < 0,05$) terhadap pertambahan berat badan, dan konversi pakan. Hasil uji lanjut menunjukkan bahwa kelompok perlakuan MOS menunjukkan hasil yang paling berpengaruh terhadap pertambahan berat badan dan FCR dibandingkan dengan perlakuan lainnya.

Kata kunci : Ayam Broiler, *Bacillus subtilis*, Mannan Oligosakarida, Performan.

EFFECT OF *Bacillus subtilis*, MANNAN OLIGOSACCHARIDES AND COMBINATION OF BOTH ON PERFORMANCE OF BROILER

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ABSTRACT

The aims of this study was to determine the effect of supplementation of *Bacillus subtilis*, mannan oligosaccharides (MOS) and the combination of both on performance of broiler chickens. A total of 75 strains Lohmann broiler chickens reared for 14 days with 5 different treatment groups. Each the treatment was repeated 3 times, each consisting of 5 chickens. The five treatments were P1 (without antibiotics), P2 (antibiotics zinc basitracin 50 ppm), P3 (*Bacillus subtilis* 10⁷/ml), P4 (MOS 1mg/ml) and P5 (*Bacillus subtilis* 10⁷/ml + MOS 1 mg/ml). *B. subtilis*, MOS and combination of both were offer in drinking water. Feed in this study contains 19% CP and 3100 kcal ME / kg and given to chickens ad libitum. Parameters observed were feed intake, weight gain, and feed conversion (FCR) of broilers. The data obtained were tested using analysis of variance random design unidirectional pattern, then tested with Duncan's New Multiple Range Test (DMRT). The results showed that the treatment had not significantly effect ($P < 0.05$) on feed consumption, but showed significant ($P < 0.05$) on weight gain and feed conversion. The test further results showed that MOS group had significantly highest on weight gain and FCR compared to the other treatments.

Keywords: Broiler Chickens, *Bacillus subtilis*, Mannan Oligosaccharides, Performance.