

EFFECT OF SUPPLEMENTATION OF NON STARCH POLYSACCHARIDE HYDROLYZING ENZYMES ON NUTRIENT UTILIZATION AND ECONOMICS OF BROILER PRODUCTION

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ABSTRACT

Two hundred and fifty one-day old Ven-Cobb straight run commercial broiler chicks were supplemented with the NSP hydrolyzing enzymes at 1X (HC) concentration viz. (xylanase, β -D-glucanase, cellulase, mannanase and pectinase @ 2400, 4800, 1800, 4800, and 2400 IU/kg respectively and the same enzyme combination was supplemented @ 4800, 9600, 3600, 9600 and 4800 IU/kg respectively as 2X (HC) to the corn + soybean meal based standard diet. Similarly the corn + soybean meal diet was supplemented with NSP hydrolyzing enzymes at 1X (LC) viz. (xylanase, β -D-glucanase, cellulase, mannanase and pectinase @ 400, 240, 200, 200, and 400 IU/kg respectively and the same NSP hydrolyzing enzyme combination was supplemented @ 800, 480, 400, 400 and 800 IU/Kg respectively as 2X (LC). The birds were weighed, wing banded and randomly distributed in to five experimental groups, with ten replicates and five birds in each replicate to assess the effect of the NSPHE combination on nutrient retentions and cost economics. The NSP hydrolyzing enzymes at 1X (HC) level viz. (xylanase, β -D-glucanase, cellulase, mannanase and pectinase @ 2400, 4800, 1800, 4800, and 2400 IU/kg respectively has influenced the protein and energy utilization @1X (HC) and also evolved as an economical combination for the commercial broiler birds reared on the standard corn soybean meal based diet. However the NSP hydrolyzing enzymes did not influenced the overall nutrient retention and were not found to be economical when supplemented @ 1X (LC) , 2X (LC) and 2X (HC) to the corn soybean meal based diets.

KEYWORDS: Non Starch Polysaccharide Hydrolyzing Enzymes, Lower Concentration, Higher Concentration

Original Article

Received: Jan 12, 2016; **Accepted:** Jan 27, 2016; **Published:** Feb 01, 2016; **Paper Id.:** IJASRFEB201633