Dose-Responses of Broiler Chicks, Given Live Coccidia Vaccine on Day of Hatch, to Diets Supplemented with Various Levels of Farmatan® (Sweet Chestnut Wood Tannins) or BMD®/Stafac® in a 42-Day Pen Trial on Built-Up Litter

Danny M. Hooge, Greg F. Mathis, Brett Lumpkins, Janez Ponebšek and Donnie Moran
Prinova Animal Nutrition, 285 East Fullerton Avenue, Carol Stream, IL 60188, USA

Abstract:

Dietary Farmatan® Powder (~73% tannins) was used to determine live performance dose-responses of male Cobb broiler chicks on built-up litter top dressed with wood shavings in a summer trial. Dietary Farmatan® tannin concentrations used were: 0 (negative control), 250, 750, or 1,000 ppm. Positive control (antibiotic) diets had BMD® 55 ppm (0-35 days) and Stafac® (35-42 days). Feeds were steam pelleted and fed as crumbles or pellets. There were 45 chicks/pen initially and 8 replicate pens/treatment (8 blocks of 6 pens each; Randomized Complete Block Design; LSD p = 0.05). The body weight (BW) gains were not significantly different from 0-21 d or 0-35 days but from 0-42 days (p = 0.002) were, respectively (kg): 2.238b, 2.238b, 2.299a, 2.299a, 2.282ab, 2.290a, 2.316a. Mortality-adjusted Feed Conversion Ratios (MAFCR) from 0-21 days (p = 0.002) were, respectively: 1.513a, 1.488ab, 1.476bc, 1.469bc, 1.454c and 1.442c. The MAFCR from 0-35 days (p = 0.001) were, respectively: 1.666a, 1.657ab, 1.646abc, 1.626cd, 1.621d and 1.641bcd. The MAFCR from 0-42 days (p = 0.004) were, respectively: 1.694a, 1.698a, 1.685ab, 1.665bc, 1.661bc and 1.655c. Stafac® 22 ppm in finisher (35-42 days) gave the best BW gain and feed conversion ratio. Litter moisture % at 21 days was lower (p = 0.032) using Farmatan® 500, 750, or 1,000 ppm than BMD® 55 ppm and at 42 days was lower (p = 0.046) for each Farmatan® level than for negative control. Farmatan® 750 or 1,000 ppm improved (p=0.008) 42-d litter score (0 driest to 5 wettest) compared to negative control. Mortality % from 0-42 days and litter nitrogen % at 42 days were unaffected by treatment. Farmatan® improved BW gain and MAFCR and promoted drier litter.

Key Word:
Broiler, chestnut tannins, dose-response, Farmatan, litter

Volume 11, Number 7, - 2012, ISSN 1682-8356