

# Growth Performance Augmentation Efficacy of Ingredient of PHYTOCEE® in Broilers : *Withania somnifera* (Ashwagandha)

## OBJECTIVE

To evaluate the effects of using *Withania somnifera* roots on the performance parameters in Hubbard strain broiler chicken.

## MATERIALS AND METHODS

A total of five hundred one-day-old chicks were randomly divided into 25 separate floor pens each comprising 20 chicks and five pens (replicates) per treatment group in a completely randomized design. Basal broiler's diet supplementation with 0, 0.11% antibiotic, 1.25, 2.5 or 5.0% *Withania somnifera* roots (WSR) was investigated. The performance parameters viz. weight gain (g), FCR, and mortality (%) along with dressing (%) were evaluated on day 28 and 42.

## RESULTS

### Effect of *Withania somnifera* roots on performance parameters and dressing percentage in broiler chicken

| Treatments       | Weight gain (g)          |                           | Feed: gain ratio          |                           | Mortality(%) |      | Dressing (%)*              |                            |
|------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------|------|----------------------------|----------------------------|
|                  | 28 d                     | 42 d                      | 28 d                      | 42 d                      | 28 d         | 42 d | 28 d                       | 42 d                       |
| Negative control | 908 <sup>c</sup> ± 3.00  | 1709 <sup>c</sup> ± 3.35  | 1.68 <sup>a</sup> ± 0.13  | 2.21 <sup>a</sup> ± 0.16  | 1.50         | 2.00 | 46.90 <sup>b</sup> ± 01.52 | 55.10 <sup>b</sup> ± 02.29 |
| Positive control | 988 <sup>ab</sup> ± 3.08 | 1810 <sup>ab</sup> ± 4.50 | 1.51 <sup>ab</sup> ± 0.11 | 2.01 <sup>ab</sup> ± 0.10 | 1.00         | 1.00 | 52.81 <sup>a</sup> ± 02.00 | 67.17 <sup>a</sup> ± 02.52 |
| WSR (%) 1.25     | 950 <sup>b</sup> ± 2.50  | 1770 <sup>b</sup> ± 3.30  | 1.54 <sup>b</sup> ± 0.10  | 2.05 <sup>b</sup> ± 0.15  | 1.00         | 0.50 | 51.60 <sup>a</sup> ± 02.10 | 66.35 <sup>a</sup> ± 02.09 |
| 2.50             | 995 <sup>a</sup> ± 3.02  | 1815 <sup>a</sup> ± 3.33  | 1.46 <sup>c</sup> ± 0.15  | 1.94 <sup>c</sup> ± 0.16  | 0.50         | 0.50 | 53.90 <sup>a</sup> ± 02.30 | 68.36 <sup>a</sup> ± 02.21 |
| 5.00             | 1009 <sup>a</sup> ± 3.09 | 1853 <sup>a</sup> ± 3.40  | 1.43 <sup>c</sup> ± 0.10  | 1.91 <sup>c</sup> ± 0.10  | 0.50         | 0.50 | 53.95 <sup>a</sup> ± 01.99 | 68.59 <sup>a</sup> ± 02.50 |

<sup>a-c</sup>Means with different letters in column are different (p≤ 0.05)

## CONCLUSIONS

At 28 and 42 days of age, birds fed diets supplemented with 2.5 or 5.0% *Withania somnifera* roots had greater body weight than those fed diets with 1.25% *Withania somnifera* roots and negative control.

## Reference:

Ansari J, Khan S H, Haq A U et al. Effect of supplementation of *Withania somnifera* (Linn.) Dunal roots on growth performance, serum biochemistry, blood hematology, and immunity of broiler chicks. Journal of herbs, spices & medicinal plants. 2013 Apr 3;19(2):144-58.