

Effect of Herbitol at Different Concentrations (ml/Litre Water) On the Economic Parameters of Broiler

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Abstract:

The current research investigates Effect of herbitol at different concentrations (ml/litre water) on the economic parameters of broiler. Data were collected from of 200 Hubbard day old chicks were purchased from local market. The birds were reared for a period of 06 weeks (42 days). The chicks were initially weighed and randomly divided into four groups A, B, C and D with equal number of chicks .Group A was kept as control, whereas group B, C and D was supplemented Herbitol @ 2ml/L, 4ml/L, and 6ml/L respectively. The economic parameters of broiler flock given Herbitol and allocated groups A (Control), B (Herbitol @2ml/litre water), C (Herbitol @4ml/litre water) and D (Herbitol @6ml/litre water) was taken into account on the basis of total feed cost, total live body weight, market sale price of chicken and subsequent impact on the net profit was worked out (Table 1). The average feed cost on broilers in group A, B, C and D was Rs. 162, 161.4, 162.8 and 165.2/bird; while the total costs including the costs on feed, herbitol, other medication, litter, limestone, labour and other miscellaneous expenditures in groups A, B, C and D were Rs. 259, 258.6, 259.8 and 262.2/bird, respectively. On average the birds generating total income of Rs. 267.4, 274.6, 289.8 and 308/bird, respectively when marketed at the rate of Rs. 140/kg live body weight. Hence, from group A, B, C and D, the net profit remained Rs. 8.4, 16, 30 and 45.6/bird, respectively. It was concluded that economically the broiler managed in group D (Herbitol @6ml/litre water) proved to be more profitable as compared to rest of the treatment groups and control group.

Introduction:

Phytogenic compounds are the groups of feed additives that have been reported to possess qualities of growth improvement of poultry birds due to the presence of pharmacologically active substances. They increase the feed intake, activate the digestive system, enzymes and enhance the immunity of birds (Anonymous, 2015). Antibiotics and growth promoters are being largely use to get ideal weight and profit in the products of poultry like eggs and meat (NOAH, 2001). Antibiotic usage provides good profitable market but there is criticism over the usage of antibiotics because of its residual effect in poultry products (Donoghue, 2003). Among preventive antibiotics, herbs have been used for natural therapy as pharmaceuticals; however, recently aromatic plants and their extracts are introduced into the animal feeding. Some herbs and herbal extracts beneficially improve the feed intake and secretion of digestive juices (Faleiro *et al.*, 2003). Since ancient time there is large usage of plant sources to treat ill animals and birds (Ganesan and Bhatt, 2008). Herbal plants have no harmful effect on hematological and serum biochemical parameters of the birds (Oduola *et al.*, 2007).

History of herbs is as long as the human story, since the earliest times, people uses these plants. War has been fighting to conquer the land because of the plant, even if today we continue to rely on many of our new alien species pharmaceuticals and chemicals (Richmond and Mackley, 2000). Now a days many countries tended to minimize or ban the chemical components for their harmful side effects on both animals and human. So, it is essential to use natural herbs. In China medicinal herbs have been used for growth of broilers (Sajid *et al.*, 2015). In addition, many plants have natural properties, e.g., tonics, antiparasitic, anti-fungal, stimulant, carminative antiseptic, anti-bacterial and anti-microbial (Soliman *et al.*, 1995). Edible plants, herbs, and Vegetable spices are suggested as non-traditional growth promoters or feed additive in diets to increase the growth of broiler, feed conversion efficiency (FCR) and decrease the feed cost (Hassan *et al.*, 2004). In broiler diets useful herbal plants supplemented as growth promoters and detected a noticeable development in their body weight, feed conversion and mortality percentage (Sabra and Mehta, 1990). Herbs and herbal products positively influence the growth performance (Guo *et al.*, 2000). Mottaghitlab (2000) reported that garlic may be used as a natural herbal growth promoter for broilers, without any side effect, neither for chicken performance nor for consumers. Wezyk *et al.* (2000) reported that replacing antibiotic growth promoters with herbs resultantly decrease the body weight, increased feed conversion ratio. The results of some experiments with broiler chickens indicate that herb supplements have a positive effect on the growth performance and the

colour of skin (Zglobica *et al.* 1994). Feeding dietary garlic powder for 21 days significantly reduce plasma cholesterol level of broiler chicken, without altering the growth performance of the broiler chickens or the feed efficiency (Konjufca *et al.* 1997).

Data Collection Methodology

Data were collected from of 200 Hubbard day old chicks were purchased from local market. The birds were reared for a period of 06 weeks (42 days). The chicks were initially weighed and randomly divided into four groups A, B, C and D with equal number of chicks .Group A was kept as control, whereas group B, C and D was supplemented Herbitol @ 2ml/L,4ml/L,and 6ml/L respectively.

Results

Hematology normally contains the full blood count and the organs which are responsible for blood formation. The full blood count includes red blood cells, platelets, packed cell volume, hemoglobin, white blood and the red blood cell; mean cell volume, mean corpuscular hemoglobin and mean corpuscular hemoglobin concentration (West and Haines, 2002). Sajid *et al.* (2015) observed that supplementation of herbal products showed significant effect against the on the immune response of broilers against various infectious diseases. Herbal medication showed significant effects on blood glucose and red blood cells (RBC), but showed non-significant effect on hemoglobin, white blood cells (WBC), cholesterol and packed cell volume (PVC), in their conclusion, herbal supplementations in broiler showed positive effect on immunity, performance and blood parameters. The composition of herbitol is composed of Dextrose, Ginger ext; Allium ext; Vinigar, Clove oil, Belladonna, safrol + biochemic salts. Herbitol is used mainly for growth promotion and for constipation. Keeping in view the above facts, present study is plan to investigate the effect of commercial herbal compound (Herbitol) on the feed intake and blood hematology of broiler chicken.

Table 1: Effect of herbitol at different concentrations (ml/litre water) on the economic parameters of broiler.

Particulars	Groups			
	A	B	C	D
Day-old chicks	27	27	27	27
Feed consumed	4.05	4.04	4.07	4.13
Rate of feed	40	40	40	40
Feed cost (Rs)	162	161.4	162.8	165.2
Herbitol	0	10	15	20
Medication	8	8	8	8
Litter cost	15	15	15	15
Limestone	2	2	2	2
Labour cost	35	35	35	35
Misc.	10	10	10	10
Total cost	259	258.6	259.8	262.2
Final LBW (kg)	1.91	1.96	2.07	2.20
Marketing price	140	140	140	140
Total Income Rs	267.4	274.6	289.8	308
Net profit	8.4	16.0	30	45.6

Economic parameters of broiler flock given Herbitol and allocated groups A (Control), B (Herbitol @2ml/litre water), C (Herbitol @4ml/litre water) and D (Herbitol @6ml/litre water) was taken into account on the basis of total feed cost, total live body weight, market sale price of chicken and subsequent impact on the net profit was worked out (Table 1). The average feed cost on broilers in group A, B, C and D was Rs. 162, 161.4, 162.8 and 165.2/bird; while the total costs including the costs on feed, herbitol, other medication, litter, limestone, labour and other miscellaneous expenditures in groups A, B, C and D were Rs. 259, 258.6, 259.8 and 262.2/bird, respectively. On average the birds generating total income of Rs. 267.4, 274.6, 289.8 and 308/bird, respectively when marketed at the rate of Rs. 140/kg live body weight. Hence, from group A, B, C and D, the net profit remained Rs. 8.4, 16, 30 and 45.6/bird, respectively. It was concluded that economically the broiler managed in group D (Herbitol @6ml/litre water) proved to be more profitable as compared to rest of the treatment groups and control.

Economic parameters of broiler flock given Herbitol and allocated groups A (Control), B (Herbitol @2ml/litre water), C (Herbitol @4ml/litre water) and D (Herbitol @6ml/litre water) was taken into account on the basis of total feed cost, total live body weight, market sale price of chicken and subsequent impact on the net profit was worked out (Table 1). The average feed cost on broilers in group A, B, C and D was Rs. 162, 161.4, 162.8 and 165.2/bird; while the total costs including the costs on feed, herbitol, other medication, litter, limestone, labour and other miscellaneous expenditures in groups A, B, C and D were Rs. 259, 258.6, 259.8 and 262.2/bird, respectively. On average the birds generating total income of Rs. 267.4, 274.6, 289.8 and 308/bird, respectively when marketed at the rate of Rs. 140/kg live body weight. Hence, from group A, B, C and D, the net profit remained Rs. 8.4, 16, 30 and 45.6/bird, respectively. It was concluded that economically the broiler managed in group D (Herbitol @6ml/litre water) proved to be more profitable as compared to rest of the treatment groups and control.

Control

On average the birds generating total income of Rs. 267.4, 274.6, 289.8 and 308/bird, respectively when marketed at the rate of Rs. 140/kg live body weight. Hence, from group A, B, C and D, the net profit remained Rs. 8.4, 16, 30 and 45.6/bird, respectively. It was concluded that economically the broiler managed in group D (Herbitol @6ml/litre water) proved to be more profitable as compared to rest of the treatment groups and control group.

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