Review


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ABSTRACT: The poultry industry is considered an important sector that meets the great demand for protein sources all over the world. Now, quails are recognized as promising and important alternative species with many advantages over other poultry species. In many countries around the world, quail meat has achieved great popularity as a good source of protein and other important nutrients. However, there are some limitations and challenges to quails production. One of them is the susceptibility to some viral, bacterial, mycotic and parasitic diseases that can adversely affect quails. Many of the diseases that affect quails cause severe economic losses in quail industry due to a decrease in growth performance, poor feed conversion, reduction in hatchability, increased mortality and treatment costs. There are limited research and literature dealing with different disease and conditions affecting quails. Therefore, the aim of this work was to present a comprehensive review of the most important emerging diseases affecting quails worldwide.

Keywords: Bacteria, Virus, Mycosis, Myctoxicosis, Parasites, Quail

Systematic Program for Destroying of Flies’ Population in Poultry Farm under Battery Cage Management in Russia.
ABSTRACT: Favorable conditions for development, reproduction, and accumulation of large amounts of zoophilous flies in commercial poultry farms are caused by incomplete compliance with veterinary and sanitary rules for growing in cage facilities. The purpose of the study was to test a systematic insecticidal program for destroying flies’ populations using adulticide and larvicide drugs in poultry farms under battery cage management. The number of imago flies in hen houses was dynamically evaluated using flypapers, six flypapers in each hen house, situated in different levels above the floor. Flypapers were removed and the number of stuck insects was counted. The number of larvae was evaluated in dynamics by specimen testing from the floor area 10x10 cm, with weight of 3-5 g. The Quick Bayt WG 10% was applied to destroy the imago of flies. Baycidal® WP 25% was used against larvae of flies. Complex insecticide program Quick Bayt WG 10% + Baycidal® WP 25% provided the opportunity to destroy flies, with a significant difference in intensefficacy, (98.3 % for adult flies and 99.8 % for larvae). Furthermore, this program had a positive impact on economic indicators of meat production of broilers. The present study demonstrated high preventive efficacy and economical efficacy of complex program against flies under battery cage broiler management.

Keywords: Adulticide, Economical Efficacy, Fly Larvae, Intensefficacy, Larvicide, Zoophilous Flies


The Effect of Bacillus subtilis Inoculum Doses and Fermentation Time on Enzyme Activity of Fermented Palm Kernel Cake (FPKC)

FPKC with Bacillus subtilis of 7% inoculum doses and 6-day fermentation time indicate the best result as seen from 24.27 U/ml of mannanase activity, 10.27 U/ml of protease activity, and 17.13 U/ml of cellulase activity.

The Relationship between the Host and Gut Microbiota can affect the balance of mutualism and pathogenicity. The imbalanced gastrointestinal microbiota by suppressing the growth of pathogens. For many years, antibiotic growth promoters have been used to manage these problems. Nowadays, because of the emergence of antibiotic-resistant bacteria, other alternatives are being sought. Supplementation of probiotics as feed additives is considered to enhance chicken productivity and to protect the gut microflora caused by the incidence of disease, hygiene conditions, diet, management practices, and environmental stress affects the survival and productivity of chicken.

Palm kernel cake (PKC) was by-product of palm oil industry and it had potential to provide an excellent source of protein production worldwide. The poultry gastrointestinal microbiota includes commensal, mutualistic and pathogenic microbes. The relationship between their potential characteristics.

Gastrointestinal microbiota, Poultry, Probiotics

Poultry production is presently the most effective animal production industry and the poultry diet is not limited to grains. The main purpose of the present study was to find an alternative source for traditional energy to provide the energy requirements in the poultry industry. The present study conducted a study on the effect of Bacillus subtilis inoculum doses and fermentation time on enzyme activity of fermented Palm Kernel Cake (FPKC) with 3 × 3 factorial and 3 replications. Factor A was 3 doses of inoculum and fermentation time on all of the enzyme activity. This study concluded FPKC with 7% inoculums doses and 6 days fermentation time indicate the best result as seen from 24.27 U/ml of mannanase activity, 10.27 U/ml of cellulase activity, 17.13 U/ml of protease activity.

Concentrations of ammonia ranged from 22 ppm at ventilation rate every two minutes to 28 ppm at ventilation rate every four minutes. Productivity decreased in poultry houses with a conventional heating system and was 2.3 kg when using a solar heating system with a ventilation rate every two minutes. It was demonstrated that solar energy as an alternative source to the traditional energy, is very efficient and can be applied on a large scale when combined with conventional electricity as a light source and within specified limits.

Energy balance, Poultry production, Solar heating system, Ventilation

Gastrointestinal microbiota, Poultry, Probiotics

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Experimental study of feeding laying hens with the feed containing the Mospilan and Actara insecticides

Neonicotinoids
Mospilan (Acetamiprid)
32.5-65 mg/kg of body weight
Actara (Thiamethoxam)
180-360 mg/kg of body weight

Chronic poisoning
78 - 99%
Reduced egg productivity
Low toxic
Change the biochemical processes in meat and increase its toxicity


ABSTRACT:
The experiments were performed on five groups each consisting of seven chickens. The age of chickens at the beginning of the experiment was 150 days. The birds were fed the granulated compound feed. In M1 and M2 groups, Mospilan at doses of 65 mg/kg and 32.5 mg/kg of body weight were added to the feed, respectively. In A1 and A2 groups, Actara at doses of 360 mg/kg and 180 mg/kg of body weight were added to the feed, respectively. In A1 and A2 groups reduced by 89.2% and 48.7% compared to the control group, respectively. Chickens weights of internal organs decreased by 23-36% in experimental groups. In the experimental groups, the pH of meat decreased at day 4 post-slaughter, and the meat broth with the addition of 5% copper sulfate solution was slightly cloudy with flakes. The meat of birds from the experimental groups had pale skin and enlarged heart, also showed spot hemorrhages in mucous membranes of the glandular stomach and intestine, color heterogeneity of the lungs, and the liver was dark cherry in color with hemorrhage. In addition, the relative pathological changes were evaluated. Egg production rate in M1 and M2 groups in comparison to the control group decreased by 78.4 and 29.7%, respectively. Egg production rate in A1 and A2 groups, the meat quality, and gross effects of Mospilan and Actara were low toxic. Extracts from chicken meat of the experimental groups caused pathological changes, inhibition of movements and death of 13-16% of Tetrahymena pyriformis infusoria. This study demonstrated that the presence of Mospilan and Actara in feed reduced the egg production rate, caused chronic poisoning, changed biochemical processes in meat and increased its toxicity.