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DOI: [https://dx.doi.org/10.36380/jwpr.2019.20](https://dx.doi.org/10.36380/jwpr.2019.20)
**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
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 Aspergillus fumigatus Infection on Antibody Immune Response to NDV-vaccinated broiler chickens of 10 days old were experimentally infected by feeding on Aspergillus fumigatus. Twenty vaccinated broilers but not fed the contaminated diet were used as the control group. Clinical signs, histopathological changes, NDV antibody levels in infected birds were recorded.

Aspergillus fumigatus infection might predispose birds to other respiratory infections, leading to considerable economic losses in the poultry industry. Twenty vaccinated broilers but not fed the contaminated diet were used as the control group. Twenty vaccinated broilers but not fed the contaminated diet were used as the control group. Aspergillus fumigatus infection might predispose birds to other respiratory infections, leading to considerable economic losses in the poultry industry.

The antibody immune response against NDV significantly reduced in birds infected with Aspergillus fumigatus. Aspergillus fumigatus and aflatoxin suppress immune responses that may facilitate the infection of birds with other microbial infections, leading to considerable economic losses in the poultry industry.
Effect of Using Solar Energy and Different Ventilation Rate on Production in Poultry Houses.
Gad S, El-Shazly MA, Wasfy KA and Awny A.
J. World Pult. Res. 9(4): 204-210, 2019; pii: S2322455X1900026-9
DOI: https://dx.doi.org/10.36380/jwpr.2019.25

ABSTRACT:
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 was conducted in four poultry houses with different heating systems (solar and conventional) and ventilation rates located in El-Sharkia Governorate, Egypt, during June and July 2018. In this study, it was found that productivity increased by increasing the ventilation rate, where productivity reached 2.3 kg when using a solar heating system with a ventilation rate every two minutes. Productivity decreased in poultry houses with a conventional heating system and was 2 kg in ventilation rate every 2 minutes, and 1.8 kg in the ventilation rate every four minutes. The level of ammonia was also reduced with the ventilation rate every two minutes. Concentrations of ammonia ranged from 22 ppm at ventilation rate every two minutes to 28 ppm at the ventilation rate every four minutes. In addition, solar energy provided good levels of thermal requirements. It was demonstrated that solar energy as an alternative source to the conventional 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.

Keywords: Energy balance, Poultry production, Solar heating system, Ventilation

The Effect of Bacillus subtilis Inoculum Doses and Fermentation Time on Enzyme Activity of Fermented Palm Kernel Cake (FPKC).
Mirnawati, Ciptaan G and Ferawati.
DOI: https://dx.doi.org/10.36380/jwpr.2019.26

ABSTRACT:
Palm kernel cake (PKC) was by-product of palm oil industry and it had potential to be one of the poultry ration ingredient. However, its utilization for poultry was still limited because of the β-mannan in PKC. In order to increase PKC utilization in poultry ration, fermentation process was done to remodel β-mannan by using Bacillus subtilis. This research conducted a study on the effect of Bacillus subtilis inoculum dose and fermentation time to increase the enzyme activity of FPKC by using CRD with 3 × 3 factorial and 3 replications. Factor A was 3 doses of inoculum Bacillus subtilis: 3%, 5%, and 7%. Factor B was fermentation times which contained: (1) 2 days, (2) 4 days, and (3) 6 days. Parameters used were enzyme activity of mannanase, protease, and cellulase in FPKC. Significant interaction was seen between inoculum doses of Bacillus subtilis and fermentation time. There was also a significant interaction on each of the inoculums dose of Bacillus subtilis and fermentation time on all of the enzyme activity. This study concluded FPKC with Bacillus subtilis of 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 protease activity, 17.13 U/ml of cellulose activity of fermented PKC.

Keywords: Bacillus subtilis, Enzyme activity, Fermentation time, Inoculum doses, Palm Kernel Cake

Probiotics and Poultry Gut Microflora.
Tsega KT, Maina JK and Tesema NB.
DOI: https://dx.doi.org/10.36380/jwpr.2019.27

ABSTRACT:
Poultry production is presently the most effective animal production industry and provides an excellent source of protein production worldwide. The poultry gastrointestinal microbiota includes commensal, mutualistic and pathogenic microbes. The relationship between host and gut microbiota can affect the balance of mutualism and pathogenicity. The imbalanced gut microflora caused by the incidence of disease, hygiene conditions, diet, management practices, and environmental stress affects the survival and productivity of chicken. Maintenance of the gut microbial composition is possible through the regulation of the 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 productivitity and to protect the gut from pathogen colonization and help to tolerate environmental stress. The goal of the present article was to review the poultry gastrointestinal microflora and probiotics role in the health and growth of poultry. In addition, this article focused on probiotic microorganisms and their potential characteristics.

Keywords: Gastrointestinal microbiota, Poultry, Probiotics

Review Paper

Probiotics and Poultry Gut Microflora.
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**ABSTRACT:**

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

Neonicotinoids

Mospilan (Acetamiprid)
32.5-45 mg/kg of body weight

Actara (Thiamethoxam)
180-360 mg/kg of body weight

Chronic poisoning

78-89%

Reduced egg productivity

Change the biochemical processes in meat and increase its toxicity

30 days

Low toxic

Keywords:

Agricultural Research, Environment, Health and Ethics in Animal Agriculture, Natural Resources Management, Livelihoods, Organization, Institutions, Policies, Trade, Governance. 

**Dukhnytskyi V, Bazaka G, Sokolyuk V, Boiko P and Ligomina I.**


**History and Current Situation of Commercial Ostrich Farming in Mexico**


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**History and Current Situation of Commercial Ostrich Farming in Mexico**

As in many other countries, in Mexico, the ostrich aroused the interest of public authorities and the media specialized in agriculture due to its high commercial interest, from the arrival of the first birds to the current farms. In 1988 the first farm was established, then a series of farms of significant size were appearing, all of them focused on supplying the national market. At the beginning of the 1990s, the ostrich meat began to be exported to the United States, and it was estimated that there were about 15 farms which were actively producing for export. In 1994 the first official report was published, which showed that there were 32 active farms in the country (1998-2008). The main client was the government that acquired the ostrich meat for the army's nutritional needs. In 2001, the Ministry of Agriculture and Rural Development established an Office of the Ostrich in charge of the development of the activity and to provide information to the farmers and the market. However, the demand response was overestimated and the farmers ventured into the activity without the necessary knowledge bases, infrastructure, and institutional support. These findings could be referred to many other species of nascent interest.

In the case of ostrich, in Mexico and many other countries, the sector failed because the market was located and provided information for this study. The farms that remained in the activity were located in the north of the country, where the climate is more favorable for the species. There were a series of cases of ostrich farms that were successful, but in the majority of them, the farms were inefficient and the infrastructure and promotion sufficient to position the ostrich products were not produced on the national or international level. In the domestic markets, only a small number of these farms continued with significant difficulties in terms of their productivity, however, they had managed to create productive chains and develop standardized products using maquiladora companies, and placed them in niche markets that paid for higher prices than those that are paid for conventional substitutes. In the export market. In 2016 it was known that about 30 farms remained in the activity, of which 20 were located in the state of Sinaloa. As a result of the late start of the activity, the farmers had to sell their breeding stock, a business that was profitable during the heyday of the ostrich, to invest in the production of meat and to feed the 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 in groups of receiving insecticides had pale skin and enlarged heart, also showed spot hemorrhages in mucous membranes of the glandular stomach and intestine, color heterogeneity of 5% copper sulfate solution was slightly cloudy with flakes. The meat of birds from the experimental groups showed 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 of the lungs, and the liver was dark cherry in color with hemorrhage.