Research Paper

Prevalence and Risk Factors Associated with Cryptosporidium Infection in Raw Vegetables in Yazd District, Iran.


ABSTRACT

Consumption of raw vegetables is an important route of parasites transmission. It is an important source for foodborne outbreaks in both developed and developing countries, and outbreaks of parasitic diseases in humans. The objective of the present study was to detect the presence of *Cryptosporidium* oocysts in raw fresh vegetables in Yazd city, Iran, from 2017 to 2018. A total of 275 fresh vegetable samples were collected and tested using a sucrose flotation medium of 1.21 specific gravity and a Modified Ziehl-Nielsen staining procedure. Of the 275 vegetables examined, 85 (31.5%) samples were positive for *Cryptosporidium* oocysts. Lettuce had the highest rate (n= 16, 47.1%) of contamination with *Cryptosporidium* oocysts while basil and parsley showed the lowest rates of contamination (n= 6, 20%). There was a significant association between the occurrence of *Cryptosporidium* oocysts and the investigated vegetable types. According to the locations of the vegetable field, Amir Abad and Bahaman Hospital area had the highest (n: 16, 59.3%) and lowest (n= 5, 18.5%) rates of *Cryptosporidium* oocysts contamination, respectively. The plant part showed that the root vegetables had the highest contamination rates (n= 41, 45.6%), followed by leafy vegetables (n= 44, 24.4%). The analysis further indicated a significant association between the occurrence of *Cryptosporidium* oocysts and the route of vegetable consumption. Based on these results, the edible vegetables in Yazd city are one of the potential sources of *Cryptosporidium* infections in humans. Moreover, the vegetable fields within the city of Yazd are contaminated with *Cryptosporidium* oocysts which can pose public health problems.

**Keywords**: *Cryptosporidium*, Oocysts, Raw vegetables, Yazd city, Iran.

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Enterococcus faecium and 3 (7.89%) were Enterococcus faecium species had reduced total protein, albumin, and globulin in the blood serum while total streptococcosis causes economic losses due to the high mortality in Nile tilapia (E. coli, 3 (37.5%) were Enterococcus faecalis were detected at 310 bp while 2, 5 (13.15%) were Streptococcus agalactiae for some fish and water isolates, 6 by PCR and chemical analysis in cultured tilapia fish. A total of 100 cultured tilapia fishes and 20 water samples were collected from 4 different fish farms at different locations in Kafr El-sheikh Governorate for bacteriological and chemical isolation results revealed 38 except for ammonia were within the permissible limit. The bacterial isolation results revealed 38 Streptococcus agalactiae, Enterococcus faecalis, Enterococcus faecalis, Ali GIE, Abd El-Hady HAM, and Abou Zeid MAM.

**ABSTRACT**

In the present study, a number of camels, cattle, sheep, and goat herds have been examined and followed up to record the incidence of tick infestation in Al-Ahsa Oasis in the Eastern Region of the Kingdom of Saudi Arabia. From 24 herds distributed in eleven localities, a total of 4068 animals (123 camels, 60 cattle, 1780 sheep, and 2105 goats) were individually examined. Tick infestation in terms of mean intensity, abundance, and prevalence rates was highest in camels (41 tick/infested camel, 30 ticks/camel, and 73.17%, respectively). This was according to the obtained results of the current study, tick control can be started in Al-Ahsa area ranged between 47℃ and 50℃), mainly due to the management practices of farmers. During this period animals were housed and water was supplied, Hyalomma marginatum turanicum (6.20%), Hyalomma marginatum rufipes (3.57%), and Amblyomma variegatum (14.04%). Tick infestation in terms of mean intensity, abundance, and prevalence rates was

**Antibacterial Efficacy of Zinc Oxide and Titanium Dioxide Nanoparticles against Escherichia coli in Minced Meat**

This work aimed to investigate the antibacterial effect of zinc oxide (ZnO) and titanium dioxide (TiO2) nanomaterials against Escherichia coli in minced meat, followed by the combination of ZnO and TiO2, and 12 mM TiO2 alone. The antibacterial activity of ZnO, TiO2, and combination of ZnO and TiO2 was also examined against Escherichia coli stored at 4 °C for 17 days. It is concluded that 12 mM ZnO nanoparticles have the best antibacterial effect against E. coli.
ABSTRACT

Aim of the study was to identify factors affecting the farrowing duration in natural farrowing sows in the intensive indoor conditions. In total, 210 farrowing sows in 4 commercial farms were included in the study. A total of 230 litters were born in the study period. General linear models were applied to identify the factors affecting farrowing duration. Two final models demonstrated that the number of total born piglets, stillborn, and mummified piglets were more important than litter weight and average birth weight in explaining the farrowing duration. Two models explained 19.1-19.5% variation of the farrowing duration.

Keywords: Birth weight; Farrowing duration; Sow; Stillbirth; Total born.
Staphylococcus aureus Typhimurium, Staphylococcus aureus (Salmonella) virulence gene in the overall herd by the prevalence of 8.6%. Isolation and identification of keywords: Salmonella of Egyptian isolated strain showed a great identity with the different Typhimurium field isolates from bulk tank milk samples. 20 locally field isolates from cattle dairy farms were 556.7×10³ cfu/ml. Serological identification of the 20 isolates revealed that they were detected and confirmed phenotypically by culturing, gram staining, biochemical, and physiological tests. SopB gene was found in 13 (54%) isolates. Phylogenetic and partial gene sequence analysis of Staphylococcus aureus Typhimurium isolates (100%). Phylogenetic and partial gene sequence analysis of Staphylococcus aureus (Salmonella) virulence gene for field isolates from bulk tank milk samples revealed that 20 locally field isolates were detected and confirmed phenotypically by culturing, gram staining, biochemical, and physiological tests.

The geometric mean value of Somatic cell count in bulk tank milk. The PCR amplification with (gene-specific primers revealed a product with an approximate size of 937 bp. (gene) was found in all field isolates. The geometric mean value of Somatic cell count in bulk tank milk. The PCR amplification with (gene-specific primers revealed a product with an approximate size of 937 bp. (gene) was found in all field isolates. The geometric mean value of Somatic cell count in bulk tank milk. The PCR amplification with (gene-specific primers revealed a product with an approximate size of 937 bp. (gene) was found in all field isolates. The geometric mean value of Somatic cell count in bulk tank milk. The PCR amplification with (gene-specific primers revealed a product with an approximate size of 937 bp. (gene) was found in all field isolates.
were PapC N-terminal domain (107-394bp), bcfC domains region in the nucleotide sequence by BcfC different Typhimurium. The PCR amplification with Salmonella Sequencing of Salmonella gene at (417bp) demonstrated great homology between the Egyptian bcfC Salmonella Salmonella Salmonella Typhimurium isolates were located in the same geographical area of cattle farms in addition to duck farms. Moreover, the PapC N-terminal domain was a central conserved domain encoded vaccine production against bcfC gene-specific primers was conducted with genomic DNA, which revealed a product with the a Salmonella typhimurium Typhimurium in Egyptian duck farms. Out of 75 fecal swab samples, 15 (20%) local field bovine-based products across the world especially in the United Kingdom, USA, Ireland, and bcfC Typhimurium and different transmission of salmonella strains between the human beings and other animal farms, including strains uploaded from GenBank. Sequence identities between the isolated Egyptian strain and gene showed great homology between the Egyptian Salmonella Typhimurium strains uploaded from GenBank. In conclusion, the Egyptian S. urium, Sequencing.

PRK15193 outer membrane usher protein (56-424bp), and Salmonella bcfC Typhimurium strains from GenBank revealed 99.8-100% homology. Open reading frame (ORF) and serologically to be gene of gene of strains uploaded from GenBank. Amino acids alignment report of the sequenced 415 amino acid of approximate size of 467 bp. The epidemiology, disease pattern of Typhimurium.

The main objective of this study was to applying Most of the duck farms from which we isolated the Egyptian Dairy cows with early-stage interdigital necrobacillosis. Those cows having no evidence of lameness and lesions attributed to animals were recruited randomly to one of the following groups. A trial group in which the affected hoof of a cow was cleaned, coated with powder containing 10

Dairy cows with early-stage interdigital necrobacillosis

El-Maghraby AS, Mwafy A and Ahmed El-Sawy HE-S.

Lactobacillus acidophilus, 2020; pii:S232245682000046-10; DOI: https://dx.doi.org/10.36389/98010.3638.2020-August-2020


The objective of this multilocation field trial was to compare the effectiveness of the topical Oxytetracycline, Probiotic, Topical administration. of Early Stage Interdigital Necrobacillosis in Dairy Cows.

10/3: 362-374

The present study was conducted to investigate the effect of dietary protein levels and citric acid Performance, Carcass Characteristics, Intestinal Morphology, and Blood Components. Chickens fed the low CP diet supplemented with citric acid which could significantly improve body weight gain, feed conversion ratio, carcass yield, unsexed one-day-old broilers were assigned to 4 dietary treatments, 4 replicates of 10 chickens level) and 90% (low level) of recommended dietary crude protein for cobb 500 broiler chickens, each protein level supplemented with or without 20-gram citric acid /kg. The results showed that parameters (Albumin, haemoglobin Ac1, fructosamine, and cholesterol). Chickens fed the low CP diet supplemented with citric acid could compensate for the growth performance equivalent to the high CP diet. Citric acid improved blood albumin and reduced haemoglobin Ac1 and fructosamine, which could serve as indicators of glycated Albumin and fructosamine concentrations in broilers fed a low CP diet supplemented with citric acid.

Keywords: Broiler, Citric Acid, Glycation, Performance, Protein level.

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Effects of Tribulus terrestris Fruits on Renal and Lung Tissues in Female Mice

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Cross-protectivity of Yolk Immuno-globulin Antibodies against Pathogenic Avian Influenza A subtypes H5N1. Administered on Chicken Infected by High Pathogenic Avian Influenza Virus. World Vet. J. 2020; pii:S232245682000048-10; DOI: https://dx.doi.org/10.3637/vetj2020.08.012

Dietary supplementing with Pentadiplandra brazzeana powder to broiler chickens via drinking water (2 g/l) or dry feed (2 g/kg) and comparing the result. Volume 10 : Issue 3, September 2020

Genetic correlation, Heritability, Post-weaning, Sinai gabali, V-line, Weaning weight

Salmonella ratio was reported with the water supplemented with Pentadiplandra brazzeana powder. Broiler chicken, Growth performances, Gut microflora, Haemato-biochemical profile, Pathogenic Avian Influenza virus, IgY anti-HA, Immunotherapy, Productivity.

The usage of Pentadiplandra brazzeana powder in chickens' diet and drinking water could decrease feed intake, compared to the inclusion via feed and with the control diet. The feeding method did not affect the ratio of intestinal flora. Pentadiplandra brazzeana powder to broiler chickens via drinking water (2 g/l) or dry feed (2 g/kg) and comparing the result. Volume 10 : Issue 3, September 2020

Pentadiplandra brazzeana powder in chickens' diet and drinking water could decrease feed intake, compared to the inclusion via feed and with the control diet. The feeding method did not affect the ratio of intestinal flora.
The Use of Diarrheic Immunogenic Protein Fraction to Distinguish Assemblages in Humans and Animals. World Vet. J., 10 (3): 446-450. DOI: https://dx.doi.org/10.3638/wvij.2020.10.3.8

ABSTRACT
Polycystic ovary syndrome, a common cause of infertility among women in the reproductive age, is associated with high levels of androgens. Recognizing the anti-androgenic effects of spearmint, the present study aimed to evaluate the effects of its hydroalcoholic extract on the levels of luteinizing hormone, follicle-stimulating hormone, and testosterone and ovarian folliculogenesis in normal and letrozole-induced polycystic ovary syndrome rats. Female mature rats were divided into six groups (n=8 per group), as follows: Normal rats (I or Control), normal rats which received 250 mg/kg spearmint extract (II) or 500 mg/kg spearmint extract (III), and PCOS-induced rats (IV), PCOS-induced rats which received 250 mg/kg spearmint extract (V), or 500 mg/kg spearmint extract (VI). At the end of the experiment the animals were euthanized, and then mentioned parameters were evaluated. Administration of spearmint extract to PCOS rats resulted in a decrease of body weight and testosterone level, higher corpus luteum, and lower ovarian cysts and atretic follicles, compared to PCOS rats which received no spearmint. Accordingly, the spearmint can attenuate polycystic ovarian syndrome-related problems, such as a high testosterone level and ovarian cysts.

Keywords: Folliculogenesis, Mentha spicata, Ovary, PCOS, Rat