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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Rapid Detection of Streptococci in Cultured Tilapia Fish Using PCR and Chemical Analysis.

**ABSTRACT**

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 analysis. The results of water quality parameters examination revealed that the mean values of temperature, pH, dissolved oxygen, and chemical oxygen demand were 28.4 ± 0.3°C, 7.5 ± 0.1, 5.5 ± 0.2 mg/l, and 7.8 ± 0.2 ppm, respectively. All water quality parameters except for ammonia were within the permissible limit. The bacterial isolation results revealed 38 isolates from tilapia fishes and 40% were positive for *S. iniae*.

**Keywords:** *S. iniae*.

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**Incidence and Prevalence of Hard Ticks in Ruminants of Al-Ahsa Oasis Region, Kingdom of Saudi Arabia.**

**ABSTRACT**

According to the obtained results of the current study, tick control can be started in Al-Ahsa area during hot months, thereby increasing animal density and humidity in the shaded farms.

**Keywords:** *Anthrax, Ticks, Ruminants, Incidence, Prevalence.*

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

**ABSTRACT**

This work aimed to investigate the antibacterial effect of zinc oxide (ZnO) and titanium dioxide (TiO2) nanoparticles. The antibacterial activity of these nanomaterials was evaluated using the disc diffusion method. In this regard, minced meat samples were inoculated with *E. coli* and incubated for 17 days. The results indicated that ZnO (12 mM) had a significant antibacterial effect against *E. coli*.

**Keywords:** *ZnO, TiO2, Minced meat, E. coli.*

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**Incidence and Prevalence of Hard Ticks in Ruminants of Al-Ahsa Oasis Region, Kingdom of Saudi Arabia.**

**ABSTRACT**

The incidence rate of ticks significantly increased during the warmest summer months of the year (highest recorded temperature range between 47℃ and 50℃), mainly due to the management practices of farmers. During this period animals were housed and water was supplied ad libitum. In total, 5320 ticks were collected from 1125 infested animals (27.65%). The overall prevalence rate of identified Ixodide ticks was 14.29% in camels, 17.63% in cattle, 14.04% in sheep, and 8.56% in goats. Tick infestation in terms of mean intensity, abundance, and prevalence rates was increased during the warmest summer months of the year.
The results also 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 variation of farrowing duration. Among the four factors, average birth weight had a negative association with farrowing duration. Two final models demonstrated that the number of total born piglets had a negative association with farrowing duration. The other three factors had positive associations with farrowing duration. Two models explained about 19.1-19.5% variation of the farrowing duration.

The current study aimed to carry out a post-mortem analysis of the dairy calves with clinical suspicion of listeriosis and determine a condition that contributed to death using histopathological evaluation. The tissue samples were obtained from 16 dairy calves with the age range of one day to one month, which died presumably due to listeriosis on several livestock farms in the Almaty region of Kazakhstan. The calves had symptoms of neurologic diseases and capable of combating the present situation of COVID19 pandemics. Reiterating the fact that OH approach should not only be in paper and there is no alternative but combined utilization of scarce resources for healthy animals, humans, and the environment with the sincere and patriotic role played by veterinarians of Nepal has pressurized the government of Nepal to recognize veterinary service as an important service by Government of Nepal on 22, 2020, only after continuous effort of Nepal Veterinary Association (NVA).
Typhimurium isolates (100%). Phylogenetic and partial gene sequence analysis of Typhimurium were detected and confirmed phenotypically by culturing, gram staining, biochemical and molecular identification to be Staphylococcus aureus. Isolation and identification of Salmonella strains uploaded from the gene bank. Phylogenetic analysis of SigD gene revealed a product with an approximate size of 517 bp.

Keywords:
Staphylococcus aureus, Typhimurium, PCR, phylogenetic analysis, risk factors,
**ABSTRACT**

Typhimurium strain and the different Salmonella gene at (417bp) demonstrated great homology between the Egyptian analysis of gene using NCBI tool and ORF analysis of Typhimurium strains from GenBank revealed 99.8-100% homology. Open reading frame (ORF) Sequencing of bcfC urium, Sequencing. Salmonella Typhimurium. A PapC N-terminal conserved domain can be used as a vaccine target for World Vet. J. strains uploaded from GenBank. In conclusion, the Egyptian bcfC Typhimurium in Egyptian duck farms. Out of 75 fecal swab samples, 15 (20%) local field S. vaccine production against gene of duck farms. Moreover, the PapC N-terminal domain was a central conserved domain encoded m recently isolated from ducks to give insight into the source and origin, molecular El-Maghraby AS, Mwafy A and Ahmed El- Sawy HE-S. Typhimurium. Phylogenetic and partial gene sequence analysis of Typhimurium. The PCR amplification with strains uploaded from GenBank. Sequence identities between the isolated Egyptian strain and (CUP). Amino acids alignment report of the sequenced 415 amino acid of Salmonella Typhimurium. PRK15193 outer membrane usher protein (56-424bp), and Salmonella bcfC Typhimurium. Sequencing. Salmonella Sequencing.
On the last day of the study, the animals were euthanized, and their kidney and lung were ameliorated cadmium toxicity. The fruit indicated normal tissue appearance, while others showed large aggregations of Tribulus terrestris sampled for histological study. The kidney tissue in mice exposed to cadmium showed cellular effects against cadmium in the lung tissue. These results demonstrated that Tribulus terrestris effects against cadmium in the lung tissue. These results demonstrated that Tribulus terrestris effects against cadmium in the lung tissue.

Assessment of Genetic Capability for Post-Weaning Growth Traits of Reciprocal Cross Gabali and V-Line. Reciprocal cross crosses. The study samples included two pure rabbit breeds (a male Gabali (G) and a female V-Line (V)), and reciprocal crosses to compromise 10 groups. Weaning was implemented on the 28th day of the kits’ age. Post-weaning litter traits were measured Body weight (BW) at 4, 5, 6, 8, 10, and 12 weeks of their age; and were 24 hours before infection, at the time of infection, and 24 hours after infection. The inhibiting activity was observed through Immunohistochemistry. Sixty chickens were infected with 10^5 of virus to evaluate the effect of IgY. The IgY that was most effective was the one that was isolated from chickens fed on antibiotic (1 g/kg) and chickens fed without additive. The results revealed that the incorporation of P. brazzeana powder through drinking water at a rate of 2 g/l can be used as an alternative to antibiotics to inhibit AI replication. The effectivity of IgY anti-Hemagglutinin Protein (anti-HA) of High Pathogenic Avian Influenza clade 2.1 (A/Chicken/Blitar/2003) could protect chickens against infection of High Pathogenic Avian Influenza clade 2.3.2 (A/Duck/Sidoarjo/2012). The inhibiting cross-protectivity of IgY as preventive method against HPAI outbreak.


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ABSTRACT
Helicobacter gene by nested PCR. The PCR positive samples from human and dog isolates were further
Helicobacter pylori in both dogs and dog owners in Egypt. Zoonotic transmission of dogs and their role in the transmission of objective of the present study was to determine the prevalence of was detected in 62.5% and 91.6% of dog and human samples, respectively. The nucleotide 16s rRNA gene sequencing. Phylogenetic analysis based on partial sequence of this gene was performed to the dog owners. For this purpose, 60 gastric biopsy samples from dog owners and 80 stool between dogs and humans is probable and represents a public health concern.


Giardia species are a group of Gram-negative, microaerophilic bacteria, which are known 10(3): in Egypt: Public Health Significance. World Vet. J., 10 (3): 446-450


**Research Paper**

**Capacity of Mentha spicata (spearmint) Extract in Alleviating Hormonal and Folliculogenesis Disturbances in Polycystic Ovarian Syndrome Rat Model.**

Alaee S, Jafar Bagheri M, Sadeghi Ataabadi M and Koohpeyma F.


**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

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**Research Paper**

**Comparison of Serological Tests in Cattle and Ovine Brucellosis; an Abattoir Study in Algeria.**


**ABSTRACT**

Despite the paucity of data, brucellosis is considered as a major problem in Algeria. The aim of present study was to assess the presence of bovine and ovine brucellosis in the areas close to the capital city (Algiers) where its vaccination is not implemented. A total of 402 cattle and 203 ovine sera were collected from two slaughterhouses, and examined by the Rose Bengal Test (RBT). Positive samples were then tested by Complement Fixation Test (CFT) and Hypertonic Double Gel Diffusion (DDG) with a smooth lipopolysaccharide, and the extract of native hapten was also tested by Indirect Enzyme Linked Immuno Sorbent Assay (iELISAs) with smooth lipopolysaccharide and polyclonal or protein G conjugates. Twenty-four bovine sera (5.97%) were RBT positive. Of these, 23 were positive in CFT, DDG, and 16 samples were also positive in iELISA when the assay was adjusted to 100% specificity. Only two ovine sera were RBT positive; one was CFT and DDG positive, and the other one had a CFT-titer of 1/4, and was DDG negative. This preliminary study confirmed that bovine brucellosis is a major problem in Algeria, and indicated that some field studies are needed to determine the prevalence of Brucellosis in Algeria urgently. Similarly, other studies are necessary in areas with dominance of ovine breeding system. Further studies in the areas with a dominance of ovine breeding system are necessary. The results of this work showed that simple tests like RBT and DDG are not outperformed by CFT or iELISA for assessing the apparent prevalence of brucellosis in the absence of vaccination. Finally, isolation and typing of the involved Brucella species are also necessary in order to have a complete epidemiological picture of brucellosis in Algeria.

**Keywords:** Abattoirs, Algeria, Brucellosis, Cattle, Serology, Sheep, Prevalence