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


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


Antibacterial Efficacy of Zinc Oxide and Titanium Dioxide Nanoparticles against Escherichia coli in Minced Meat. World Vet. J., 10(3):
Modern pig farming worldwide has been facing substantial economic loss due to perinatal conditions, which are mainly associated with the farrowing process. Therefore, the present study aimed to identify factors affecting the farrowing duration in natural farrowing sows in the Almaty region of Kazakhstan. The calves had symptoms of neurologic dysfunction prior to death. Necropsy and collection of brain histological specimens were performed on ten affected calves to address histopathological alterations observed in calves clinically suspected of listeriosis. Post-mortem histological evaluation in the appropriate diagnosis, there is no sufficient evidence for Listeria monocytogenes, one of the leading causes of neonatal sepsis, to be the causative agent of the disease. The histopathological findings were consistent with infection by Listeria [species] or another agent(s) that could even be the result of simple filtration of maternal blood.

### Contribution of Veterinary Sector in Handling of COVID-19 Pandemic in Nepal


Veterinary Service was enlisted as important service by the Government of Nepal on 22, 2020, only after continuous effort of Nepal Veterinary Association (NVA).

Veterinary laboratories also started COVID19 tests.
- National Avian Disease Investigation Laboratory, Chitwan.
- Regional Avian Disease Investigation Laboratory in Biratnagar, Sankhu, Bhajangad and Siddhipur.

In total, 210 farrowing sows in 4 commercial farms were included in the study. The association between potential risk factors and farrowing duration was analyzed.

### Trace Elements Profiles of Pregnant Camels (Camelus dromedaries), Fetus and Amniotic Fluid at Birth and their Association with Calf Birth Weight


Amniotic fluid is a dynamic complex mixture that carries components contributing to the development of the fetus and placenta. Significant differences in trace element levels were found between amniotic fluid, maternal serum, and venous umbilical cord serum at delivery. The study further investigated the relationships among levels of these trace elements (Fe, Zn, Cu, Mg, Se, and Mn) and birth weight for the newborn dromedary calf. The Fe, Zn, Cu, Mg, Se, and Mn were analyzed on the atomic absorption spectrophotometer. Concentrations of trace elements, Fe, Zn, Cu, Mg, Se, and Mn in VUCS did not correlate with MS levels of the trace elements. However, neonatal weight did not correlate with MS levels of the trace elements. In contrast, Se, a trace element with a significant role in the development of the fetus, showed positive correlations with neonatal weight. This suggests that Se may play a crucial role in the development of the fetus, particularly in the dromedary camel, and its levels should be monitored to ensure proper development.

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Risk Factor Analysis of Mastitis, PCR, phylogenetic analysis, risk factors, Staphylococcus aureus, Salmonella strains uploaded from the gene bank. The results of the present study emphasize the importance of more efficacious preventive programs for controlling the mastitis and strains of Staphylococcus aureus, a major pathogen in dairy cow mastitis. Bulk tank milk analysis was referred to as a useful and appropriate diagnostic tool to evaluate milk quality and mastitis pathogens in cattle dairy herds. Out of the total number of 150 pooled samples from 150 cattle dairy farms, 13 locally field isolated strains of Salmonella were detected and confirmed phenotypically by culturing, gram staining, biochemical, and serological tests. The PCR amplification with specific primers revealed a product with an approximate size of 937 bp. The isolates were detected and confirmed by PCR and were analyzed for the presence of the virulence gene hlg of Egyptian isolated strain indicated a great homology with the different virulence genes found in all isolates. The results of the present study indicate that Salmonella spp. is an important pathogen in Egyptian dairy herds.mastitis pathogens in cattle dairy herds. Out of the total number of 150 pooled samples from 150 cattle dairy farms, 13 locally field isolated strains of Salmonella were detected and confirmed phenotypically by culturing, gram staining, biochemical, and serological tests. The PCR amplification with specific primers revealed a product with an approximate size of 937 bp. The isolates were detected and confirmed by PCR and were analyzed for the presence of the virulence gene hlg of Egyptian isolated strain indicated a great homology with the different virulence genes found in all isolates. The results of the present study indicate that Salmonella spp. is an important pathogen in Egyptian dairy herds.

Parameters of Growing Rabbit.

Effect of Dietary Dried Fennel and Oregano and Thyme Supplementation on Zootechnical Parameters of Growing Rabbit.

The present study aimed to determine the prevalence of antibiotic-resistant strains of Vibrio spp. in seabass and seabream in fish markets, especially streptomycin-resistant strains that have great public health importance. A total of 30 seabass (Dicentrarchus labrax) and seabream (Sparus aurata) were purchased from fish markets at Kafr El Sheikh Governorate and subjected to bacteriological examination. The PCR assay was used for the detection of virulence genes (toxR, trh, tdh), aminoglycoside resistance gene (aadA1), and the presence of members of the Aeromonas genus (V. mimicus, V. parahaemolyticus). Out of the 30 seabass, 27 had Vibrio spp. in their gut, including 6 (8.3%), 5 (8.3%), and 1 (1.6%) isolates of V. mimicus, V. parahaemolyticus, and V. vulnificus, respectively. Out of the 30 seabream, 28 had Vibrio spp. in their gut, including 7 (25.0%), 3 (10.7%), and 2 (7.1%) isolates of V. mimicus, V. parahaemolyticus, and V. vulnificus, respectively. The results indicated that the total prevalence of Vibrio spp. in seabass and seabream in fish markets, especially streptomycin-resistant strains, is high and should be considered a public health concern.
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