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.
**ABSTRACT**


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**Materials and Methods**

- **Detection of Streptococci**
  - Microbiological examination
  - Water chemistry measurements

- **Detection of Lipid Peroxidation**
  - Enzymatic activity measurements
  - Identification of virulent streptococci species

**Results**

- Minimum inhibitory concentration (MIC) values were determined for each concentration of ZnO and TiO2.
- The highest MIC value was observed for the combination of ZnO + TiO2, followed by ZnO alone, and then TiO2 alone.

**Conclusion**

The study concludes that ZnO nanoparticles have the highest antibacterial activity against E. coli compared to TiO2 nanoparticles and their combination.

**Keywords:** Escherichia coli, Nanoparticles, Antibacterial activity.
Hoai Nam N and Sukon P. Variation of farrowing duration significantly associated with farrowing duration. Among the four factors, average birth weight had a negative association whereas the other three factors had positive associations with the study. The association between potential risk factors and farrowing duration was analyzed. Piglets were more important than litter weight and average birth weight in explaining the variation of farrowing duration. Two models explained about 19.1–19.5% variation of the farrowing duration.
Research Paper

Plate Count and Somatic Cell Count in Bulk Tank Milk in Cattle Dairies.

ABSTRACT

The importance of more efficacious preventive programs for controlling the mastitis and Standard plate count, and Somatic cell count in bulk tank milk. The PCR amplification with (sopB
Salmonella
Typhimurium
molecular identification to be
(30-day-old), white New Zealand, were divided into 4 groups and submitted to the following
dietary treatments: Control diet, F diet (Control diet + 5% Foeniculum vulgaris), O diet (Control
oils. The aromatic plants and their active compounds can be used as additives in rabbit
thyme dietary supplements on the feeding of rabbits. In this regard, 96 weaned rabbits
research study with 12 replicates for each group. The results of this study revealed that
Growing rabbit

Essential oil, Fennel, Growth performance, Oregano, Rabbit, Thyme.

Keywords:

Production parameters and growth performance of rabbits fed the control and dietary treatments,
including an increase in the feed intake, food conversion ratio, and body weight gain found in the rabbits of the
F diet group. The ovulation rate is higher in the rabbits of the F diet group.


Zootechnical Parameters of Growing Rabbit.

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


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Zootechnical Parameters of Growing Rabbit.
Salmonella Typhimurium. The PCR amplification with strains uploaded from GenBank. Nucleotide alignment report of the sequenced Typhimurium showed clear clustering of Egyptian isolates of Typhimurium in Egyptian duck farms. Out of 75 fecal swab samples, 15 (20%) local field.

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

ABSTRACT

Farhan AS.

Keywords: Effects against cadmium in the lung tissue. These results demonstrated that...
fecal and blood samples were collected from diarrheic dogs and dog owners in Egypt. Zoonotic transmission of genus-specific 16s rRNA gene by nested PCR. The PCR positive samples from human and dog isolates were further subjected to partial sequence of Helicobacter pylori. To determine the relationship between human and dog isolates.

Keywords: Helicobacter pylori, dogs, dog owners, zoonotic transmission.


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

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