ABSTRACT

The germicidal effect of five selected commercial disinfectants included, TH4+; Tek-Trol; Biocide-30; Sodium hypochlorite and Formaline were evaluated on four bacterial strains (Staphylococcus aureus; Escherichia coli; Salmonella dublin and Clostridium perfringens) and four mould and yeast species (Asperigullus flavus; Asperigullus fumigatus; Asperigullus niger and Candida albicans). Three concentrations of each disinfectant compound including the recommended one as well as, higher and lower concentrations were tested on each experimented strain after 5, 15, 30 and 60 minutes. The obtained results revealed that, at the recommended concentration the organic disinfectants had a very strong germicidal effect on most of the experimented bacterial; fungal and yeast strains with inhibition percentages up to 100% within 5 minutes after the disinfectant application. On the other hand, the inorganic disinfectants had reasonable germicidal effect on most of the tested organisms after moderately longer periods of application. From the achieved data it could be concluded that the organic disinfectants are the disinfectants of choice to be used in the veterinary fields due to their high efficacy in destruction of the pathogenic organisms beside their safety use.
ABSTRACT

A total of 48 freshly dead broiler (1-7 weeks old) Habard chicken collected from different governmental and private farms at Assiut Governorate. All samples were subjected for mycoplasma, viral and bacterial examination. The microorganisms were cultured from joints and bones of the legs, which showed pathological evidence of infection. All the samples were negative for mycoplasma and viruses but only 17 positive cases for bacteria were isolated (14 cases for Staphylococcus aureus with an incidence of 29.2% and 3 cases for Non Hemolytic E.coli with an incidence of 6.3%). Experimental infection in broiler chickens via the intravenous (I.V) injection of isolated Staph. Aureus revealed that the clinical observation and postmortem lesions were similar to a great extent to those of natural infection. Reisolation of inoculated bacteria was also done. The histopathological examination of the joints and bones of the legs from the natural or experimental infected birds revealed acute and subacute fibrinopurulant arthritis especially in the knee joints. The arthritis was associated with osteomyelitis and necrosis in the epiphyseal and physeal cartilage at the bony ends. The pathogenesis of these lesions was discussed. In vitro sensitivities of the isolated Staphylococcus aureus against different antimicrobial agents showed that the examined isolates were highly sensitive to Ciprofloxacin, Enerofloxacin, Gentamycin and Amikacin.
(Cheese)

NO : 103

TITLE : Effect of Nigella Sativa and Salt on the Growth and Survival of *E.Coli* O157:H7 During Manufacture and Storage of Damietta Cheese.

AUTHORS : Nahed M. M. Wahba; M. M. Ali and Eman K. Ahmed

ADDRESS : Animal Health Research Institute, Assiut Lab.


ABSTRACT

Damietta cheese was prepared from pasteurized milk inoculated with *E.coli O157:H7* and contained 5%, 10% sodium chloride. Nigella sativa seeds (1%, 3%) were added. Cheeses were stored in their whey, at room (25±2°C) and refrigerator (5 ± 2°C) temperatures. Cheese samples were examined periodically for *E.coli O157:H7* count, acidity, salt and moisture content. The results indicated that counts of *E.coli O157:H7* increased rapidly during storage of control cheese at room temperature reaching $8\times10^5$ cfu/g by the end of the first week, then decreased gradually till the fourth week. *E.coli O157:H7* could survive until the end of the third week of storage in control cheese stored at refrigerator. However, the organism was not detectable after three and two weeks in cheeses containing Nigella sativa and stored at room and refrigerator temperatures respectively. There was a decrease in moisture content while, acidity and salt contents increased. Nigella sativa seeds were found to have antimicrobial activities against *E.coli O157:H7*. The results recommended the use of 5% salt and 1% Nigella sativa to produce a new type of Damietta cheese.

(Children)

NO : 104

TITLE : Clinical Laboratory Study on Bloody Diarrhea in Children.

AUTHORS : Madiha, M. Elsady.

ADDRESS : Pediatrics Dept., Faculty of Medicine, Assiut Univ.

SOURCE : Thesis (M.Sc), 2002

ABSTRACT

The study includes 100 child suffering from bloody diarrhea (58 cases with acute diarrhea and 42 cases with chronic diarrhea). The cases were evaluated clinically and stool analysis, culture and blood picture were done to all cases. 40 cases were given cefotaxim and the clinical improvement was evaluated after treatment. We found that the most important organism responsible for bloody diarrhea was E-coli followed by Salmonella and Shigella and the rate of improvement in cases treated with cefotaxim was higher than cases not given cefotaxim.
### ABSTRACT

A study was conducted to compare the effectiveness of various intrauterine therapies on enhancing the conception rate of dairy cows affected with endometritis. Ninety Holstein-Friesian cows (4-7 years of age) at about 80 to 120 days postpartum were included in this study and randomly allocated into five equal treatment groups (n = 18). An intrauterine infusion of 100 ml normal saline (control); 50 ml homologous plasma or 100 ml colostric serum every 48 hours for three times; OTC infused intrauterine as a single dose; and 100 ml of Lotagen solution infused intrauterine as a single treatment dose. If the cervico-vaginal mucus condition was not clear, the cow was treated again for a maximum of three times by the same treatment. The successfully treated cows were inseminated. The overall success rate of treatments was 61.1% and the success rate after 1st treatment was 41.1%. There was a high significant effect (p<0.01) of treatment and calving condition on interval from calving to conception. The higher success rate after 1st treatment (61.1% and 50.0%); overall success rate (83.3% and 72.2%) and shorter interval from calving to conception (157.72±8.57 and 171.00±9.58 days) were observed in OTC and colostric serum treated groups, respectively. However, the interval from calving to conception for Lotagen treated group was significantly longer than oxytetracycline group (p<0.05) and shorter than control and plasma treated groups. Calving condition had a significant effect (p < 0.05), especially on the interval from calving to conception. The interval was longer for cows with history of abnormal calving or abnormal puerperium (191.33±5.15 vs. 175.47±5.19 days). These results indicate that intrauterine infusion with either OTC or colostic serum was effective to improve the pregnancy rate and to shorten the interval between calving and conception in dairy cows affected with mild endometritis. Economic losses due to cost and milk disposals may argue against the use of OTC and for the use of colostric serum in cases of mild endometritis.
ABSTRACT

Diabetes is a chronic disease of life long duration, and its management require a fundamental change in the patients’ life style. The success of long term maintenance therapy for diabetes mellitus depends largely upon the patients compliance with a therapeutic plan. This study aimed to assess compliance to therapeutic regimen of diabetic patients attending out-patient clinic and in-patient department at Assiut University Hospital (n=100). The results showed that, more than half of the patients 60(60%) had good compliance with diet regimen, and majority of the patients (78%) had good compliance with treatment regimen, and 75% of the patients had good compliance for periodic check up for glycemic status. However, 45%, 70%, 56% and 88% had poor compliance with foot care, smoking cessation, blood pressure monitoring and eye examination respectively.
The antimycotic effect of some disinfectants was comparatively studied under different pH gradients. Reference strains of *C.albicans*, *A.niger* and *T.mentagrophytes* were used in the current study. Quantitative suspension test was used with an initial inoculum of $1.0 \times 10^7$ CFU/ml from each organism. After different exposure time (1; 2; 5; 10; 15; 30 and 60 min), 1.0 ml was taken and added to 9.0 ml of the neutralizer to give the required concentration and left for 10 min before spreading of 0.1mL on Sabouraud Dextrose agar medium. The CFU/ml was recorded for each time point and the reduction of the viable count was recorded as $\log_{10}$ of the count. The obtained results revealed that glutaraldehyde, formaldehyde, phenols and quaternary ammonium compounds are highly effective at alkaline pH. The acid pH gradient of these compounds either fails to give the required result or needs a longer time of exposure. On the other hand, sod. hypochlorite and standard phenol were showed high antimycotic efficiencies under acidic pH than alkaline ones. Using the alkanizing and/or acidifying agents observed no direct toxic effect on the organism. This indicates that the pH may modify the disinfectant performance, which should be put in our mind during disinfection.
ABSTRACT

A total of 635 samples included 100 adult hens, 180 fresh eggs, 240 eggs during incubation after treatment at 1st, 10th, 18th day old embryonated egg, 40 swabs from hatchery rooms and 75 baby chicks. These samples were collected from two farms in Sohag Governorate. In an experiment for the evaluation of the efficacy of different disinfectants quaternary ammonium compounds and hydrogen peroxide were highly effective against common microorganisms and gave good hatchability 93.3%, while combination between them gave unsatisfactory hatchability 73.3%, another disinfectant was used in this study sodium hypochlorite that gave hatchability with a rate of 90.3%. It is apparent apparent that many products more efficient, safer and environmentally friendly than formalin.
ABSTRACT

This context has shown the advantage of pectolytic Bacillus macernas SM as microbial inoculants isolated from polluted Solanum tuberosum wastes of food industries in Upper Egypt. The maximum enzyme production by *B. macernas* SM was obtained on industrial pectin under different cultural conditions. Enzyme biosynthesis was induced at substrate concentration 2%. Temperature and pH optima were 30°C and 6, respectively. The optima of carbon and nitrogen sources essential for the best yield of enzyme were galactose and potassium nitrate, respectively. On the other hand, the best yield of pectinase was obtained after 48h incubation in 500 ml flask volume under static cultural conditions. The optimal cultural and nutritional conditions for production of maximal pectinase to be applied fairly in food industries resulted in: increasing of maceration yield up to 86.52% of potato pulp followed by increase in clarification yield up to 29.60% in guava corresponding filtration yield 80.3% in tomato juice. The best preservation conditions for both clarification and filtration processes of guava and tomato were recorded at room temperature. Where, alkaline pectinases are among the most important industrial enzymes and are of great significance in the biotechnological applications, the present enzyme may be of remarkable application in biodetergents, food industry, textile processing, treatment of pectic wastewater, paper making, and coffee and tea fermentations.
**ABSTRACT**

Twenty fungal isolates and fifteen bacterial ones were isolated from soil and lupin rhizosphere. Three of the isolated fungi exhibited overgrowth upon Fusarium sambucinum the incitants of lupin root-rot and wilt disease complex. Four bacterial isolates exhibited moderately and highly antagonistic effect. Other tested fungal and bacterial isolates gave slightly antagonistic effect. Addition of *Trichoderma harzianum* culture filtrates and *Bacillus subtilis* to the medium showed inhibitory effect of the pathogen linear growth in vitro.

Root exudates of lupin cultivars to medium affect the pathogen growth in vitro. Root exudates of Giza 2 lupin cultivar gave the highest reduction in pathogen mycelia growth followed by root exudates of Giza 1, while root exudates of Australian cultivar gave the lowest reduction. Addition of root exudates of lupin plus *T. harzianum* culture filtrate gave the higher growth reduction of the pathogen growth than root exudates of lupin only. Population density of *F. sambucinum*, *T. Harzianum* and *B. subtilis* was affected by preceding crops. Maize and sesame gave the highest population, while cotton, lupin/fallow and groundnut gave the lowest population density of the pathogen. Maize, sesame, groundnut and sorghum gave the highest population, while cotton gave the lowest population density of the antagonists.

Root exudates of different crops affected growth and spore germination of *F. sambucinum* and growth of both *B. subtilis* and *T. harzianum*. Meanwhile, root exudates of groundnut reduce the growth and spore germination of the pathogen and enhance the growth of the biocontrol agents. In greenhouses trials, application of *T. harzianum* and *B. subtilis* decreased significantly percentage of lupin root-rot and wilt disease complex infection in both tested seasons. Application of *T. harzianum* 5 days before soil infestation with the pathogen gave the lowest percentage of lupin infection.
ABSTRACT

Forty samples of luncheon meat and poultry (20 samples for each) were collected from different supermarkets at Assiut City for mycological investigation. The plating technique using dichloran ros-bengal agar medium which incubated at 28°C was used for enumeration and isolation of fungi. The results indicated that all samples were highly contaminated with moulds. Some 35 species belonging to 14 genera were isolated. The most frequently encountered fungi were *Aspergillus niger*, *A. flavus*, *A. parasiticus*, *Penicillium chrysogenum*, *P. corylophilum*, *Alternaria alternata* and *Mucor circinelloides*. *A. fumigatus*, *A. melleus*, *A. tamarii*, *P. citrinum*, *P. italicum* and *Scopuloriopsis brevicaulis* were less common. A total of 54 isolates, belonging to 26 species were tested for their abilities to produce lipase and protease enzymes. Of these isolates 81.5% and 72.2% could produce lipase and protease enzymes, respectively. The public health significance of isolated fungi was discussed.
**Title:** Bacillus Cereus in Ground Beef and its Control by Nisin.

**Authors:** A. M. Nassar, Seham A. Farrag and Nabila F.E. Soliman


**Bulletin:** 2nd Inter. Congress of Food Hygiene and Human Health 21–23 October, 2003

**Abstract**

Growth of vegetative cells of *Bacillus cereus* in meat products is a public health of concern. This study was undertaken to determine the prevalence of *B. cereus* in ground meat (kofta) and study the effect of nisin, on the growth of this organism at low temperature. Bacillus cereus is widely distributed in nature and in our study, it was isolated from 100% of raw minced meat (kofta) and from 88% of cooked kofta samples collected from different restaurants in Assiut Governorate. The effect of various concentration of commercially nisin or *B. cereus* in ground beef kept at refrigerator temperature (3°C) were investigated. The inoculated number of *B. cereus* was $10^6$ cfu/g. The used concentrations of nisin were 800, 1600 and 2400 RU/g for this purpose. The effect of nisin on *B. cereus* was varied according to its concentration. The use of 1600 RU/g nisin to inhibit the growth of *B. cereus* in ground beef at refrigerator temperature (3°C) was recommended.

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**Title:** Application of Education Program for Nurses About Infection Control Precautions with Aids and Virus Hepatitis B in Assiut University Hospital.

**Authors:** Azza Mohamed M. Hafez

**Address:** Dept. of Gynecology and Obstetric Nursing, Faculty of Nursing, Assiut University.

**Source:** Thesis (Ph.D), 2002

**Abstract**

The aim of the study is to implementation of education program for nurses about infection control precautions with aids and virus hepatitis B in Assiut University Hospital. The results of this study revealed that nurses knowledge about aids, Virus hepatitis B and infection control precaution in pre-test were very week. The in-service education program successful in upgirding or improving knowledge and practices of nurses in relation to info chino control precaution with aids and virus hepatitis B.
ABSTRACT

This study included 117 cases classified into two groups. Group 1 (included 65 HBs-Ag negative persons), Group II (included 52 HBsAg positive persons) and 26 HBsAg positive persons as a control group studied without vaccination. Seroconversion rate at group 1 was significantly higher following the second and third dose of the vaccine in comparison with prevaccination level (86.2%, 100%, 47.7%, respectively; p<0.0001). Also, seroconversion following the third dose was significantly higher in group 1 than in group 11 (100%, 46.2%, respectively; P<0.0001). The good responders (HBS-Ab level>100 mlU/ml) was significantly higher P<0.001) in group 1 (86.2%) than in group 11 (32.7%). Also, 53.8% of group 11 were found to have poor respos to the vaccine while none were poor responders in group 1 (P<0.0001). Following the 0, 1, 6 months schedule the responders were 94.9% with antibody level 9445 (6338 mlU/ml) which was highly significant (P<0.001) than responders to 0, 1, 2 months schedule (38.5%) with antibody response of 1210.5 (3423.7 mlU/ml).

In group 11:16 cases (30.8%) have converted to HbsAg-ve compared with 6 cases (23.1%) in controls with no statistical difference (P>0.05). The antibody response in cases with positive seroconversion in HbsAg is significantly higher (93.8%) than those with negative seroconversion in HbsAg (25%; p<0.001) and controls (33.3%; P=0.002). HBV vaccine appears to be safe with no serious adverse effect regardless the serological state of vaccine recipient. HB vaccine had no impact on HBsAg clearance which would have occurred as the natural course of acute HBV infection.
(Lupus Erythematosus)

NO : 115  
TITLE : Circulating Interleukin-16 in Systemic Lupus Erythematosus, Correlation with Disease Activity.  
AUTHORS : Ashraf, A. Esmail  
ADDRESS : Internal Medicine Dept., Faculty of Medicine, Assiut University.  
SOURCE : Thesis (M.Sc), 2002

ABSTRACT

The aim of this work was to examine the circulating level of IL-16 in SLE Patients and to find the relation between the disease activity index and the serum level of IL-16. This study revealed that serum IL-16 was significantly higher in SLE patients compared to the control group also it was significantly positively correlated with disease activity index. So that serum IL-16 can be used a new parameter of diseases activity in SLE patients and this opens the future hope for the use of IL-16 antagonist as a potential therapeutic method in the treatment of patients with SLE.

(Lupus Nephritis)

NO : 116  
TITLE : Cyclophosphamide Versus Corticosteroids in Treatment of Lupus Nephritis.  
AUTHORS : Manal Elsaied Ezz Eldeen  
ADDRESS : Dept. of Internal Medicine, Faculty of Medicine, Assiut University.  
SOURCE : Thesis (M.Sc), 2000

ABSTRACT

The study aimed to compare the therapeutic effects of cyclophosphamide with corticosteroids in treating lupus nephritis. The study included 30 patients with lupus nephritis, we have demonstrated from the study different histopathologic glomerular classes of the disease as mesangial, focal and diffuse proliferative G.N. There is positive correlation between clinical and histological activity as measured by activity index in proliferative glomerulonephritis, proteinuria and serological activity. The study revealed that: The level of urinary sediments decreased after treatment and this decrease was better in cyclophosphamide treated group than corticosteroid one. No significant difference between corticosteroids and cyclophosphamide in modifying the observed 24 hours urinary proteins, ESR, creatinine clearance and complement levels.
ABSTRACT

This study was to assess an educational training program for nurses working in MCH centers in Assiut regarding infection control. The study was conducted in all maternal and child health centers (MCH) in Assiut City. The total number of the study sample in all MCH centers was 72 nurses. There were two tools used for data collection: a structured interview questionnaire and an observation checklist. The structured interview questionnaire was used before and after the program to measure the exact level of knowledge that nurses have about infection such as definition of sterilization, proper isolation, good infection control, types of sterilization, equipment that may be sterilized in autoclave (6 questions). It also assesses nurses' knowledge about universal precaution related to blood and body fluids (16 questions) and their knowledge about hand washing (3 questions). The second tool is an observation checklist that was developed for assessing nurses' performance. Data were collected during the period from the beginning of January 2003 to October 2003. Each center consumed two months. This study indicated that nearly half (48.6%) of the sample were in the age group 20-30 years, 45.8% were over 30 years. All nurses lacked knowledge related to the concept of epidemiology only 40.2% of the nurses under the study had sufficient knowledge regarding the concept of epidemiology before exposure to the program. The percentage increased to 88.9% after administration of the program. Also the majority of nurses had proper hand washing techniques on the post test with a statistical significant difference of <0.01. As for nurses' knowledge of the occupational hazards to which they may be exposed during work in MCH centers, the majority of nurses mentioned needle stick, followed by the amount of blood splattering from the patient on their hands, patient sneezing or coughing and touching patient skin. Nurses play an important role in (MCH) centers to minimize and prevent infection through providing the nurses with adequate and appropriate supplies which include protective clothes and equipment in health care settings.

In conclusion; low frequency of correct answer was observed among nurses in the pre test, the prevalence of correct answer was increased in the post test related to knowledge and practice. Recommendations; periodic refresher in-service training courses should be provided to nurses in order to keep them of up dating knowledge and practice regarding to infection control.
ABSTRACT

230 samples of meat and some meat products (60 samples of raw meat, 40 samples of frozen meat, 30 samples of luncheon, 40 samples of raw kofta, 30 samples of minced meat and 30 samples of sausage) were collected randomly from different localities, butchers shops and supermarkets in Assiut Governorate. The samples were examined for the presence of L. monocytogenes and other Listeria spp. The obtained result showed that the incidence of Listeria spp. was 11.7% of raw meat, 30% of imported frozen meat, 22.5% of rew kofta, 20% of minced meat and 10% of sausage. On the other side Listeria spp. Failed to be detected in all examined ready to eat luncheon samples. A total of 14, 2, 2, 15, 2, 1 and 1 strains of L. monocytogenes, L. ivanii, L. seeligeri, L. innocua, L. welshmeri, L. grayi and L. murrayi were isolated from the 230 examined samples respectively. The effect of 2 concentrations (1% and 3%) each of clove, Nigella sativa, cinnamon and all spices or the survival L. monocytogence strain inoculated into minced meat and refrigerated at 4°C was studied. The obtained results revealed that these spices induced a marked decrease in numbers of such organisms. Where higher concentration (3%) of all spices, clove, black seed and cinnamon caused a decrease and inhibition of L. monocytogenes counts than low concentration of them (1%). The effect of frying on L. monocytogenes inoculated into minced meat was done. The result showed that the count of inoculated strain was sharply decreased and has reduction rate of 99%. 

-97-
Seventy five random samples of ready-to-eat, liver, shawarma and Elhawawshy sandwiches (25 of each) were obtained from food restaurants and street-vendors with different sanitation levels in Assiut City. The samples were examined bacteriologically for aerobic plate count, *Bacillus cereus* and *Streptococcus faecalis* count. The obtained results revealed that the mean values of aerobic plate count for liver, shawarma, and Elhawawshy were $27 \pm 18 \times 10^3$, $29 \pm 4.9 \times 10^3$ and $20 \pm 2.6 \times 10^4$ CFU/g, respectively. Significant differences were detected among the three different sandwiches. Positive *B. cereus* samples were 76, 88 and 100% with mean values of $2 \pm 0.6 \times 10^3$, $90 \pm 9$ and $1.6 \times 10^2 \pm 17.6$ CFU/g for liver, shawarma and El-hawawshy sandwiches respectively. There was a significant difference between liver sandwiches and the other two tested sandwiches. *S. faecalis* was isolated from 80, 88 and 88%, with mean values of $26.7 \pm 6 \times 10^2$, $28 \pm 7 \times 10^2$ and $45.7 \pm 5.9 \times 10^3$ CFU/g for liver, shawarma, and El-hawawshy sandwiches, respectively.

Determining the resistance of these isolates to 9 antibiotics commonly used show that *B. cereus* was highly sensitive to 5 kinds of the tested antibiotics and resistant to Ampicillin (AM$_{10}$). In contrast, *S. faecalis* was highly sensitive to Danofloxacin (DFX$_{5mg}$) only. The effect of different concentrations of both Nigella sativa 1, 3 & 5% and freshly crushed garlic 3, 4 & 5% were tested against the isolated *B. cereus* and *S. faecalis* using minced meat stored at room temperature in January (does not exceed 15°C). Highly significant differences were recorded between the control and the treated samples. Public health significance and suggested measures for improving the quality of ready-to-eat meat sandwiches to protect the consumer were given.
ABSTRACT

The present study was carried out to evaluate the prophylactic effect of tannins on visceral larval migrans, through both in vitro and in vivo studies. The in vitro study cleared that tannins have a direct effect on the viability of Parascaris equorum L2 (2nd stage larvae), where the motility decreases gradually until they become immobile after 48 hours. Their mortality rate was 6%, 18% and 30% after 2, 24 and 48 hours respectively at 2000 µg tannins/ml and was 20% at 1000 µg tannins/ml after 48 hours. In vivo experimental infection was done by using 120 mice divided into three groups (40 mice each). Group I was infected with Toxocara canis; group II was infected with Parascaris equorum and group III was infected with Toxocara vitulorum larvated eggs. Each mouse was inoculated with 100 larvated eggs per os. According to the concentrations of tannins used, each group was subdivided into subgroups (10 mice each) given 500, 1000, 2000 µg tannins/ml drinking water, respectively. The last subgroup acted as a control (given drinking tap water only). Tannins were given to animals three days preinfection and remained for 2 weeks, where the animals were sacrificed. Histopathologic examination of internal organs of sacrificed mice revealed that a) Tannins have a relative inhibitory effect against different species of larvae. b) The effect of tannins on visceral larva migrans of T. canis and P. equorum were similar where the percentage of inhibition was 50% and 60% with 1000 and 2000 µg tannins/ml, respectively. In case of T. vitulorum the percentage of inhibition was 40% and 50% with 1000 and 2000 µg tannins/ml, respectively.
Minced meat was experimentally inoculated by Enteropathogenic Escherichia coli (O_{114},K_{90}) strain and then divided into two parts: the first of which was subdivided into three equal parts and kept at different holding temperatures: 20-25°C (room temperature) for 48 hours; 4°C for 14 days and –20°C for 6 weeks respectively. An obvious increase in E.coli count in minced meat samples kept at 20-25°C had occurred, while a noticeable reduction in counts had occurred in samples kept at –20°C and finally not detected at the end of the experiment. The second part was performed to find out the effect of thermal processing of minced meat on E.coli, the maximum internal temperatures of the sample during grilling on coke fire ranged from 45-50°C. The strain of E.coli could not resist the heating process of minced meat and was completely destroyed. Public health importance of the obtained results was discussed.
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<td>TITLE</td>
<td>Role of Root Exudates of Certain Peanut Cultivars in Resistance to Root-Rot Disease.</td>
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<tr>
<td>AUTHORS</td>
<td>K.M.H. Abd El-Moneem; M.H.A. Moharam* and M.M. Ebtisam El-Sherif**</td>
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<td>ADDRESS</td>
<td>Dept. of Plant Pathology, Faculty of Agriculture, Assiut University, *Dept. of Botany, Faculty of Agriculture, South Valley University and **Plant Pathology Research Institute, Agricultural Research Center, Giza.</td>
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**ABSTRACT**

Reaction of 9 peanut cultivars to root-rot infection caused by Fusarium oxysporum Schlecht. and Sclerotium rolfsii Sacc. was studied under greenhouse conditions in 1998 and 1999 growing seasons. Local 235 peanut cultivar proved to be resistant (R) to infection with *F. oxysporum* and *S. rolfsii*, however Giza 5 peanut cultivar proved to be susceptible (S) to both pathogens. Other tested peanut cultivars were fell in between the two categories.

Root exudates of Local 235 peanut cultivar (R) greatly inhibited the mycelial growth of *F. oxysporum* and *S. rolfsii*, in vitro, whereas root exudates of Giza 5 peanut cultivar (S) greatly stimulated the mycelial growth of the two fungi as compared with the control.

Root exudates of the tested susceptible cultivar contained more number of sugars as well as amino acids than those of the tested resistant cultivar. On the other hand, root exudates of the susceptible cultivar exhibited different sugars and amino acids contents compared with those of the resistant one. Arabinose sugar as well lysine and tryptophane amino acids were detected only in root exudates of the resistant cultivar while maltose, raffinose, ribose and sucrose sugars as well alanine, glutamic acid and serine amino acide were detected only in root exudates of the susceptible cultivar.
**ABSTRACT**

The total percentage of affected rabbits with otitis media among six rabbit breeding colonies were 40 out of 206 (19.4%). This affection was observed during summer season 2003. The microscopical examination of ear scrabings revealed demonstration of psoroptes mites (*Psoroptes cuniculi*) frequently, 28/40 (70%) of diseased cases. Bacterial examination of diseased cases showed *Staphylococcus aureus*, 22/34 (64.7%). Another associating bacterial agents were *Pasteurella multocida*, 5/34 (14.7%), *Bordetella bronchiseptica* and *Escherchia coli*, 4/34 (11.8%). The surface protein patterns of whole cells of the isolates were studied using sodium dodecyle sulphate polyacrylamide gel electrophoresis. Electrophoretic patterns showed complete similarity among staph. isolates especially higher molecular weight protein bands. Non of the staph. isolates were carrying plasmids, while Gram negative bacteria (*P. multocida* and *E. coli*) carrying single plasmid of the same molecular weight (3.5 Mda). Ciprofloxacin and enrofloxacin showed complete antimicrobial susceptibility among all tested bacterial species, followed by flumequine and lincospectin. Resistance was observed especially against ampicillin, sulfadimethoxine-trimethoprim and spectinomycin, while intermediate susceptibility was demonstrated with kitamox, gentamicin, exenel and amoxacillin. Ciprofloxacin which gave the best results at antimicrobial susceptibility testing was used for treatment of diseased rabbit colony. Ivermectine (single dose 500 µg/kg, b.w., S/C) was used with ciprofloxacin (15 mg/kg b.w.) in drinking water for 4 days gave complete recovery of causative parasitic and bacterial infection.
ABSTRACT

The antimicrobial effect of tannic acid and raw material of Acacia nilotica fruits and leaves (tannin-rich plant) on Clostridium perfringens were comparatively evaluated. Different concentrations (10 mg to 10 µg/ml) of tannic acid, fruits, and leaves were tested on Cl. perfringens. The obtained results revealed that the minimum inhibitory concentrations were 156, 75 and 100 µg/ml for tannic acid, fruits and leaves, respectively. Concerning “in vivo” experiment, 30 rabbits were randomly divided into 6 groups (5 in each) after acclimatization. Each animal of the first 5 groups received 1 ml of Cl. perfringens suspension per Os by stomach tube. In the next day each group was given drinking water with different tannin concentrations ad libitum throughout the experiment. Faecal samples were collected to check the excretion rate of Cl. Perfringens. The results revealed that, tannic acid leads to drastic reduction of Cl. Perfringens count in the animal’s gut. The excretion rate of Cl. perfringens was reversibly proportional to the tannic acid content of the drinking water. No significance reduction of Cl. perfringens count was recorded in animal’s group consumed water with 0.5% tannic acid. Increasing tannic acid concentration reduced the excretion rate of Cl. perfringens. No Cl. Perfringens could be detected in the faecal matter of some animals got 2% tannic acid within 1-3 weeks. Moreover, no Cl. perfringens could be detected in the faecal matter of most animals got 4% tannic acid after few days of treatment.
ABSTRACT

A total of 135 faecal swabs were aseptically collected from different rabbit farms at Assiut Governorate. Diarrhea and emaciation were observed in 120 out of 135 while the rest were apparently healthy. These samples were examined bacteriologically for determination of the occurrence and frequency of *Aeromonas hydrophila*. The obtained results revealed that total isolates of *A. hydrophila* were 35 at percentage of (25.9%) which represented 33 isolates from diarrhotic rabbits at percentage of (24.4%) while 2 isolates were obtained from apparently healthy animals at percentage of (1.5%).

The experimental infection in 6-8 week-old rabbits by oral route led to 20% mortality. The clinical observation and the post-mortem lesions of experimentally infected animals were recorded. Clinical observations were similar to a great extent to those of natural infection. Reisolation of infecting organism from internal organs and intestinal tract of dead and scarified slaughtered rabbits at the end of observation period were conducted.

The in vitro susceptibility of the *A. hydrophila* isolates to a variety of antibiotics revealed that highest number of isolates were sensitive to Gentamycin (100%), Nalidixic acid (100%), Chloramphenicol (95%) and Cephoxetin (90%), while it was resistant to Penicillin and Ampicillin.

The public health significance and the economic losses arising from infection of the rabbit with *A. hydrophila* as well as suggestions for their avoidance were discussed.
(Rabbits)

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<tr>
<td>TITLE:</td>
<td>Significance of <em>Staphylococcus aureus</em> in Rabbits in Assiut Governorate.</td>
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<tr>
<td>AUTHORS:</td>
<td>A.M. Abdel-Gwad; A.A. Abdel-Rahman* and M. M. Ali</td>
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ABSTRACT

A total of 67 rabbits (18 apparently healthy and 49 freshly dead rabbits were collected from different private rabbitaries at Assiut Governorate. All cases were subjected to post-mortem and bacteriological examinations for possible recovery of *Staphylococcus aureus* microorganisms. Only 15 positive cases of *Staph. aureus* were isolated with an incidence of 22.38% (out of 18 apparently normal rabbit, 2 (11.11%) rabbits were affected with *Staph. aureus* while, from 49 freshly dead rabbits 13 (26.53%) were positive for *Staph. Aureus*. Experimental infection in 6-8 week-old rabbits via the subcutaneous (S/C) injection of isolated *Staph. Aureus* led to 80% mortality with post-mortem lesions similar to those of natural infection. Reisolation of inoculated bacteria was also done. The in vitro sensitivity testing of the isolated *Staph. Aureus* against different antimicrobial agents showed that the examined isolates were highly sensitive to ciprofloxacin, enerofoxacin, amikacin and gentamycin.

(Sheep – Goat)

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<tr>
<td>TITLE:</td>
<td>Field Studies on the Blood Parasites of Sheep and Goat at Shalatin City, Red Sea Governorate, Egypt.</td>
</tr>
<tr>
<td>AUTHORS:</td>
<td>Osman, M. Mohran.</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>Dept. of Animal Medicine (Infectious), Veterinary Medicine, Assiut University.</td>
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<tr>
<td>SOURCE:</td>
<td>Thesis (Ph.D), 2002</td>
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</table>

ABSTRACT

The study was carried out on 678 and 397 goat (native Shalatini breeds) of different ages and sex belonging to Shalatin City Red Sea Governorate. The incidence of hemoprotozoan infection was 21.39% of sheep representing *Theileria spp.*, *Babesia spp.*, *Anaplasma spp.*, *Eperythrozoon spp.*, and finally *Microfilaria spp*. While in goats, the incidence was 18.89% representing *Theileria spp.*, *Babesia spp.*, and *Anaplasma spp*. The incidence was predominant in aged females especially in summer due to the higher prevalence of *Hyalomma anatolicum excavatum* and *Ripicephalus bursa* ticks. Parasitized animals showed alterations in hematological values. The use of Burpavacuone, Imidocarb Dipropionate and ivermectin were highly effective in treatment of *Theileria spp.*, *Babesia spp.* and *Microfilaria spp*. Respectively.
In Upper Egypt, 6 weeks solarization of soil resulted in elevating soil temperature to ranges considered to be lethal or sublethal to many soil fungi. The composition of soil fungal community was altered in solarized soil. Both total count and number of fungal species detected on PDA medium at 28±2°C were greatly reduced in solarized soil as compared to unmulched soil. On the other hand, number of fungal genera was not significantly affected by soil solarization throughout the sampling period (0–13 months). At the end of solarization period, several fungi re-colonized solarized soil and the total count of soil fungi was significantly higher than that of unmulched soil. Counts of thermophilic/thermotolerant fungi isolated on YpSs were significantly reduced at the end of solarization period (40 days). Number of thermophilic/thermotolerant genera and species was not significantly affected by soil solarization.
(Tuberculosis)

NO : 129
TITLE : New Methods in Diagnosis of Mycobacterium Tuberculosis
AUTHORS : Hebat Allah Mohmmed Rashid
ADDRESS : Dept. of Clinical Pathology, Faculty of Medicine, Assiut University.
SOURCE : Thesis (Ph.D), 2001

ABSTRACT

This study aimed to study the new approach for diagnosis of M. tuberculosis which include new staining, culturing and molecular techniques and comparing them with the conventional method. Also focused on the MDR problem and the genetic element for detect them. The restriction fragment length polymorphism was the method used to analyzed the fingerprint of specimens.
Tuberculosis is one of the major Public Health problems in developing countries. The world health organization (WHO) in 1986 estimated that 8-10 millions new cases of tuberculosis developed every year causing 2-3 millions death annually. Directly observed therapy, short course is now accepted as the treatment regimen of choice for tuberculosis in many developing and developed countries DOTS was applied in Assiut since April 1997. This retrospective and prospective studies to assessment DOTS program in treatment of pulmonary tuberculosis in Assiut City from April 1997 to March 2000 and to show the patient outcome as percentage of cure and causes of relapse and defaulter and its percent to all patient and how to decrease the percentage of defaulter and relapse in this programme.

Epidemiological Studies of Bovine Tuberculosis with Special Reference to Tuberculocidal Effect of Some Disinfectants on M. Bovis.

An Intradermal tuberculin test survey was conducted on 39014 animals (24258 cattle and 14756 buffaloes) at Assiut province to determine the epidemiology of bovine tuberculosis. The obtained results showed that the prevalence rate of the disease was higher in cattle than in buffaloes. The prevalence rate was 0.18 and 0.14% for cattle and buffaloes, respectively. The overall mean prevalence rate of the disease was 0.17%. In order to assess the ability of the commercially available disinfectants, 6 widely common disinfectants [quaternary ammonium compound (QAC), QAC with glutaraldhyde, Phenols, Iodine, Chlorine compounds as well as formaldehyde] were tested against M. bovis. All the products were prepared at three different concentrations including the manufacturer’s recommended use. The results showed that the organism under test is sensitive to Tek-Trol (phenol), formaldehyde and glutaraldhyde. By using the recommended concentration of these germicides, M. bovis was completely destroyed after different time points. The quaternary ammonium compounds, Iodine, and chlorine compounds are not effective as a tuberculocidal agents.