(Butter)

NO : 406

TITLE : Growth and Survival of Aeromonas Hydrophila in Cooking Butter at Different Storage Temperatures.

AUTHORS : Nagah M. Saad; M. S. Sabreen and A.M. El-Kholy*.

ADDRESS : Dept. of Food Hygiene, Fac. of Vet. Med., Assiut University and *Food Hygiene, Fac. of Vet. Med., Beni-Suef, Cairo University.

BULLETIN : Assiut Vet. Med. J. Vol. 30, No. 60, January 1994.

ABSTRACT

Two lots of laboratory pasteurized cooking butter artificially contaminated with approx. 10^7 Aeromonas hydrophila/g were prepared. The first lot was stored at refrigerator temperature while, the other at freezing temperature. Samples were taken and examined initially, after 24 h and then weekly up to six weeks for pH value and number of A. hydrophila/g. More reduction in the counts of the organism occurred during freezing storage than refrigerator storage. A. hydrophila survived 6 weeks at pH 4.6. The public health significance of these findings is discussed.

(Camels)

NO	**:**	407
TITLE	**:**	The Influence of Environment and Feeding on the Clinical Condition of Camels in Upper Egypt .
AUTHORS	**:**	M.A. Mohamed; M.F. Raghib; Th.S. Abdelall and M.S. Hassan.
ADDRESS	**:**	Dept. of Med., and Infectious Disease, Fac. of Vet. Med., Assiut University.
BULLETIN	**:**	Assiut Vet. Med. J. Vol. , No. , 1988.

ABSTRACT

A total number of 108 adult camels were examined of them 64 males and 44 females. The study was carried in summer and winter in Upper Egypt in 3 main localities to see the effect of feeding and climatic conditions on the clinical signs with special references to body temperature, pulse and respiratory rate .

The study proved that camels fed very low level of concentrates whether in winter in winter or summer time were in a bad clinical condition with usually lost appetite but mucous membrane was somewhat congested at winter time with pale or rosy mucous membrane. Camels fed medium amount of concentrates which (somewhat below needed standard) showed a fair clinical condition inspire of the presence of some abnormalities manifested in the form of decreased appetite with slightly congested mucous membrane. Animal fed needed standard of food were in a good condition, clinically healthy with good appetite and rosy red mucous membrane and capillaries filled with blood .

(Camels)

NO : 408

TITLE : Clinical, Haematological and some Trace Elements status in Healthy and Emaciated Camels in Assiut and New Valley .

AUTHORS : A. S. Sayed .

ADDRESS : Dept. of Animal Medicine Faculty of Vet. Med., Assiut University.

BULLETIN : Assiut Vet. Med. J. Vol. 39 No. 77, April 1998 .

ABSTRACT

A total number of 71 camels of both sex, 6-12 years old were investigated in this study. 39 camels belonged to animals raised in the New Valley Governorate and 32 camels belonged to camels reared in Assiut Governorate at the Nile valley. 24 camels of the 71 investigated animals (14 camels in the New Valley and 10 camels in Assiut Governorate) were clinically healthy and kept as two control groups. The rest of the animals were emaciated and showed various degree of debility. Studying the clinical, haematological and some trace elements status in blood serum of these camels were the main objectives of this study. Clinical examination of the emaciated camels revealed: weakness and paleness of the mucous membranes, some camels showed disappearance of the hump, atrophy of the thigh muscles and depletion of the sub-cutaneous fat, others showed alopecia, scales, keratinization and wounds of the skin and 12 camels were suffering from chronic diarrhoea. Clinical signs and laboratory findings of blood film and skin scraping revealed that 20 camels were suffering from trypanosomiasis (10 camels in the New Valley and 10 camels in Assiut Governorates), 6 camels suffering from *mange mite*, 9 camels suffering from *trypanosoma evansi* and *mange mite* and 12 camels suffering from chronic diarrhoea, emaciation and weakness. There were a highly significant decrease in the blood serum levels of copper in all the examined emaciated camels in the New Valley and Assiut Governorates. Blood serum levels of iron, zinc and manganese in camels in the New Valley were not affected however the levels of iron and zinc were significantly decreased and the level of manganese was not changed in the blood serum of emaciated camels reared in Assiut Governorate. The blood serum levels of iron, zinc and manganese in healthy camels reared in Assiut Governorate were statistically lower than that of camels raised in the New Valley Governorate. This may be attributed to the high levels of these elements in the soils of the New Valley zones. Regarding the haematological investigation there were a decrease in the total count of erythrocytes, haemoglobin, PCV and MCHC, no changes in the MCV and MCH values and highly significant increase in the total count of leucocytes. These finding revealed that the examined emaciated camels were suffering from normocytic hypochromic anaemia with leucocytosis .

(Eggs)

NO	**:**	409
TITLE	**:**	Chromatographic Assay of Cholesterol in Chicken Eggs.
AUTHORS	**:**	M. A. Eldeeb and S. Emare*.
ADDRESS	**:**	Dept. of Animal Prod., Faculty of Agriculture and *Pharm. Analytical Chemistry, Faculty of Pham., Assiut University.
BULLETIN	**:**	Egyptian J. Animal Prod., 299-, 1994 .

ABSTRACT

An analytical assay using HPLC equipped with a stainless steel analytical column (150×4.6 mm I.D.) packed manually with ODS/TM silica (pore size, 80 A) has been optimized for the extraction selectivity and resolution of cholesterol from chicken egg. The identity of cholesterol separated from egg yolk was confirmed using sigma authentic cholesterol. The assay procedure was found to be rather sensitive and concentration dependent which allowed quantitative determination of cholesterol from several individual samples. The frequency of calculated cholesterol as per 9 egg yolk fell within the published figures which indicated reproducibility and reliability of the assay methodology. Furthermore, when authentic cholesterol was added to egg yolk and then subjected to the extraction and determination procedures, recovery was more than 99% which indicated that the assayed cholesterol from egg yolk represented the actual value. It is important to note that the analytical procedure developed in this manuscript is precise and allows no future used of internal standards. This facile and modified assay was proven to be highly applicable in study nutritional effects on chicken-egg cholesterol .

(Feedstuffs)

NO	**:**	410
TITLE	**:**	Nutritive Value of Some Non-Conventional By-Products as Poultry Feed Ingredients : III. Apparent and True Availability of Amino Acids .
AUTHORS	**:**	Sharara, H. H.; H. Y. El-Hammady and H. Abd El-Fttah .
ADDRESS	**:**	Dept. of Animal Prod., Faculty of Agriculture, Assiut University.
BULLETIN	**:**	Assiut Journal of Agricultural Sciences Vol. 24 : 2, 1993 .

ABSTRACT

Apparent and true availabilities of amino acids and available amino acids concentration in dried poultry manure, hatchery by-product meal, rabbit faeces meal and date-palm seeds meal were determined. The method involved analyses for amino acids in samples of feed and excreta obtained from a 48-hr. true metabolizable energy assay of these by products .

The apparent availability (AAAA) of total ingested amino acids of dried poultry manure, rabbit faeces meal, date-palm seeds meal and hatchery by-product meal were 84.49, 76.69, 75.92 and 73.47%, respectively. While the true amino acids availability (TAAA) values were higher than the values by 0.92, 5.08, 1.74 and 2.12%, respectively because of the correction for metabolic faecal and endogenous urinary amino acids excretion

The dried poultry manure and date-palm seeds meal were superior to rabbit faeces meal and hatchery by-product meal in the availabilities of eight amino acids. Results also showed that rabbit faeces meal seems to be reasonable ingredient in availability with somewhat less variation within its amino acids. Although, most of the amino acids in hatchery by product meal were much less available than those in the other tested materials, it contained much higher amounts of twelve amino acids. These by-product meals provides a suitable quality of protein and could be incorporated in Poultry diets .

(Feedstuffs)

NO : 411

TITLE : Nutritive Value of some Non-Conventional By-Products as Poultry Feed Ingredients :
IV. Biological Evaluation on Pekin Ducklings .

AUTHORS : El-Hammady, H.Y.; H.H. Sharara and H. Abd El-Fattah .

ADDRESS : Dept. of Animal Prod., Faculty of Vet. Med., Assiut University.

BULLETIN : Assiut Journal of Agricultural Sciences Vol. 24 : 2, 1993 .

ABSTRACT

Performance of five hundreds Pekin ducklings from 2 to 8 weeks of age as influenced by feeding of five experimental diets which include 0, 25, 50, 75 and 100% wastes mixture were examined. The mixture was consisted from four wastes : date-palm seeds meal, hatchery by-product meal, dried poultry manure and rabbit faeces meal .

The results indicate that experimental diets had a significant effect ($P<0.01$) on body weights at all ages under study. The lightest birds were ducklings fed on the diet composed entirely from the wastes mixture. Results showed that body weights of ducklings fed on conventional diet were heavier than those fed on either 75 or 100% wastes and lower than those fed on either 25 or 50% wastes inclusion of wastes mixture at levels of 25, 50 and 75% in ducklings diets did not result in significant reduction in daily body weight gain of the birds at 8 weeks of age when compared with those fed on conventional diet .

All groups of ducklings fed on diets containing wastes mixture, showed a lower total feed consumption up to 8 weeks of age. Also, there no statistical differences between the feed efficiencies of the feeding treatments at all ages under study. Moreover, the tested diets had no adverse effect on viability of birds in the different experimental groups .

Results recommended using of the diet include 50% wastes in feeding growing ducks since this diet led to slightly lower body weight (1.2%), a reduction in feed consumption (16.3%), superior feed efficiency (3.12) and consequently beneficial reduction of 42.1% of feed cost per Kilogram of body weight gain up to 8 weeks of age .

(Feedstuffs)

NO	**:**	412
TITLE	**:**	The Value of Using Different Sources and Levels of Fat in Broiler Diets .
AUTHORS	**:**	H.K. Shoeib .
ADDRESS	**:**	Animal Health Research Institute, Assiut Laboratory .
BULLETIN	**:**	Assiut Vet. Med. J. Vol. 37 No 73, April 1997 .

ABSTRACT

This study was carried out to investigate the effect of inclusion of animal and vegetable fat sources in the broiler diets of their performance. Two sources of fat; vegetable oil (Sunflower oil, SFO) and animal fat (Beef tallow, BT) were tried in two levels (2% & 4%) in four groups of chicks, besides a mixture of both fats (2% for each) was tried in additional group. The diets were isocaloric and isonitrogenous. Both fat levels (2% & 4%) improved growth and feed conversion compared with the control diet, but the 4% level was superior in its effect. Birds which had been fed diets containing a mixture from plant and animal fats were significantly higher at 21 & 42 days than those fed either SFO or BT alone. At the same time, all the three groups recorded heavier weights compared to those fed on the diet supplemented with 2% fat or fed basal diet alone. The same trend was detected for liver weight and abdominal fat percent, however the group fed on diet supplemented with 4% SFO recorded the highest value of cholesterol. Total lipids were significantly affected by fat supplementation and the animal fat was the highest in its effect .

(Feedstuffs)

NO	**:**	413
TITLE	**:**	The Characteristics and Feeding Value of Ensiled Cattle Waste-Straw Mixtures for Lambs .
AUTHORS	**:**	S.M. Mousa and H.Y.El-Hammady.
ADDRESS	**:**	Dept. of Animal Production, Faculty of Agriculture, Assiut University .
BULLETIN	**:**	Assiut Vet. Med. J. Vol. 41, No. 81, April 1999.

ABSTRACT

Small silo study was conducted to determine the ensiling time and the proportion of cattle wastes to different straws necessary for optimum fermentation. The milking cow wastes were ensiled with wheat, rice and lentil straws. The proportions of waste to straw in the silage were 25, 50 and 75% on dry matter (DM) basis. The duration of ensiling was 4, 5, 6 and 7 weeks. Results indicated that after 7 weeks of ensiling, the pH value reached to a constant level. Also, with increasing the waste proportion the change in the pH values were narrow. In vitro CP and DM digestibilities increased with increasing time of ensiling and proportion of waste. All total and fecal coliforms, and salmonella were disappeared in all mixtures after 4 weeks of ensiling. Digestibility and growth studies were carried out to determine digestibility and growth performance of lambs fed diets containing waste silage prepared from 55, 30, 10 and 5% of rice straw, cattle waste, berseem and molasses, respectively. Three diet treatments (1) control diet A, (2) 13.2% waste diet B and (3) 27.3% waste diet C in DM basis were prepared for digestibility and growth studies. Nine of one year old, Ossimi rams and twenty four, 8 months old, lamb (12 females and 12 males) were used in digestibility and growth studies respectively. Qudratic effects of digestibility were noticed when waste silage was increased from 0 to 27.3% in almost all nutrients. Crude protein digestibilities in diets B and C were about 1.76 and 0.3 times that of diet A respectively. In both males and females the average daily gain was remarkably higher in diet B than diet C which was also higher than the control. The average DG was significantly higher in males than females ($P<0.5$). differences in DFI was not significant but it was numerically higher in females than males. The relative feeding cost for producing one kg of DG was about 27% lower for males in both diets B and C than diet A, while it was 33.5 and 30% lower in diets B and C respectively, for females, than diet A. it could be concluded that cattle waste can be ensiled with different roughages and fed to lambs without adverse effects.

(Fish)

NO	**:**	414
TITLE	**:**	Effect of Long-Term Treatment of Insulin on Growth Performance, Lipid Metabolism and Electrolyte in *Oreochromis Niloticus* .
AUTHORS	**:**	M.B. Al-Salahy and S.Y. Hussein*.
ADDRESS	**:**	Dept. of Zoology, Fac. of Sci., and *Animal Prod., Fac. of Agric, Assiut Univ.
BULLETIN	**:**	Assiut Vet. Med. J. vol. 33. No 66, July, 1995.

ABSTRACT

Forty Nile fish, *Oreochromis niloticus* were injected with insulin (20 IU/Kg body weight) for different periods. Single dose for 24h and repeated doses (dose every 48h for 30, 45 and 55 days) were used in this experiment. Body gain, condition factor (Cf), hepatosomatic index (HSI) and gut weight were calculated. Levels of total lipids, triglycerides and cholesterol were determined in serum, liver and myotomal muscle.

(Fish)

NO	**:**	415
TITLE	**:**	The Effect of Protein and Energy Levels on Mineral Retention in Tilapia Fish (*O.niloticus*) .
AUTHORS	**:**	A. N. Sayed .
ADDRESS	**:**	Dept. of Animal Hygiene Faculty of Vet. Med., Assiut University.
BULLETIN	**:**	Assiut Vet. Med. J. Vol. 38 No. 76, January 1998 .

ABSTRACT

The effect of different protein and energy levels in the diets on the retention of both major (Ca, P, K, Na, Mg) and trace-elements (Fe, Cu, Zn, Mn) was investigated on a total of 200 tilapia fish (*O.niloticus*), weighing 10 gm each during a growth period of 10 weeks. Fish were fed on nine experimental diets having three levels of protein (28, 32, 36%) and energy (10, 12, 15 Mj/Kg digestible energy) and a control one. Experimental diets were tested, each for two replicates of aquaria. The ash retained in the fish body increased as the level of protein increased, while decreased as the level of dietary energy increased. The dry matter retained in the body increased as the energy level in the diets increased. Increasing the crude protein content of the diets, increased the retention level of calcium, phosphorus and potassium in the body of tilapia, while decreased as the energy levels increased. High retention values of Ca was found at 36% protein and 12 Mj/Kg DE, while for P and K were recorded at 32% protein level and 10 Mj/Kg DE. There was no significant ($P>0.05$) differences between treatments in the retention of Ca, P and K due to the effect of the protein and energy levels of the diets. The amount of sodium retained in the body of fish was decreased with increasing energy level. High retention value of Na was found at 32% protein and 10 Mj/Kg DE with utilization efficiency of 8%. Magnesium retained in the body of tilapia increased as the levels of protein and energy increased in the diets. High retention value of Mg was found at 36% protein and 12 Mj/Kg DE with utilization efficiency of 12%. Increasing protein level in the diets resulted in increased retention of all trace elements (iron, copper, zinc, and manganese), but decreased at the high level (36%). The rising energy supply reduced the retained amount of the trace elements. All trace element gave good retention in the body of tilapia with 32% protein and 10 Mj/Kg DE except Fe at 36% protein and 12 Mj/Kg DE. High retention value was found for zinc and low retention value for Mn and the utilization efficiency of trace elements ranged from 1% to 39%. On average, the amount of retained elements per Kg (on dry basis) of tilapia fish body were : 20.98g Ca, 16.34g P, 8.52g K, 0.95g Na, 1.51g Mg, 13.6 mg Fe, 1.91 mg Cu, 200.9 mg Zn and 1.25mg Mn. It could be concluded that, the retention of minerals were not significantly ($P>0.05$) affected by the level of dietary energy, while significantly ($P>0.05$) affected by the level of the dietary protein especially with Na, Fe, Zn and Mn. Among all the major elements, calcium, phosphorus and potassium supply in the feed are of major importance, while for trace elements, iron and zinc of the diets should be taken into consideration in view of the very high retention rate.

(Fish)

NO	**:**	416
TITLE	**:**	Feed Intake and Digestibility of Nutrients in Rations, with Several Feed Combinations, by Tilapia Fish (*O.niloticus*) .
AUTHORS	**:**	A.N. Sayed .
ADDRESS	**:**	Dept. of Animal Hygiene Faculty of Vet. Med., Assiut University.
BULLETIN	**:**	Assiut Vet. Med. J. Vol. 39 No. 77 April 1998 .

ABSTRACT

The digestion coefficient of several different combinations were determined in this study by tilapia (*O.niloticus*) fish in order to extract the proximate figures for the digestibility of different nutrients (organic matter, protein, fat, fibre, nitrogen free extract and energy). Fourteen digestion experiments were performed using 14 experimental rations which formulated from different feedingstuffs (fish, meat poultry by-products, earthworm, soybean, cottonseed and poultry manure meals; corn, wheat bran, middlings and berseem hay). Fish were fed twice daily to satiation and the experiments were lasted for one month. Faecal samples were collected by syphoning and filtration of the faecal matter from the aquarium. The amount of feed consumption for fish satiation depends on the quality of diets according to fibre percentage or imbibition ability of water. The digestibility of crude protein over a range of 80-91% (x = 86%) by tilapia which depends on the source of protein, and the rations with high percentages of fish meal and soybean meal had the highest digestion coefficients. The digestion coefficient for fat ranged from 83 to 85% (x = 84%), and the diets containing high levels of fat gave high values for digestibility of fat. For carbohydrates, the digestion coefficient of nitrogen-free extract ranged from 73% to 87% (x = 78%), while for fibre from 71 to 85% (x = 79%), and diets which contained cottonseed meal, wheat middlings and berseem hay had the lower carbohydrates digestibility. The digestion coefficient for energy ranged from 61 to 71% (x = 66%) and the ration contained fish oil gave high values. It could be concluded that, these average figures can be used as a guide in the formulating diets to satisfy tilapia fish needs .

(Human)

NO	**:**	417
TITLE	**:**	Mutagenicity - Carcinogenicity of Progestrone in Bacillus Subtilis .
AUTHORS	**:**	F. M. Saleh and M. Y. Hussein .
ADDRESS	**:**	Dept. of Genetics, Faculty of Agriculture, Assiut University.
BULLETIN	**:**	Assiut J. of Agric. Sci. Vol. 19 : 1 , 1988

ABSTRACT

Progestrone as a human hormone is widely used in the treatment of habitual abortion, amenorrhoea, functional bleeding, and sterility due to hypoplasia of genital organs .

In the present investigation, mutagenic, and carcinogenic effects of this hormone were determined by using of *Bacillus subtilis* as a tester organism.

The results showed that progesterone is a highly toxic, mutagenic, and even carcinogenic. The lowest concentration (25 µg/5 ml) gave the highest frequency of mutations . Lethal mutants were obtained with relatively high frequency at the highest dose 500 µg/5 ml . Some of mutants reverted after a storing period in the absence of the progesterone treatment .

Therefore, it can be concluded that the hormones should be restricted and placed under strong use of medical supervision .

(Human)

NO	**:**	418
TITLE	**:**	Effect of Nigella Sativa on Treatment of Idiopathic Thrombocytopenic Purpura.
AUTHORS	**:**	Uousreyia A. Ahmad*; Nabila M. Thabet; Muhammad R. Khalaf; Neveen A. Kamel and Ayda A. Radwan .
ADDRESS	**:**	Dept. of Internal Medicine and *Clin. Path., Fac. of Med., Assiut University.
BULLETIN	**:**	Assiut Medical Journal Vol. 19, No. 2, May 1995 : 117-125.

ABSTRACT

This study included 30 adult patients (4 males and 26 females) with idiopathic thrombocytopenic purpura (ITP). Their ages ranged from 14 to 65 years, they were dlvided into three groups each of 10 patients; group I received prednisone (5 mg tablets) 60 mg/day in dlvided doses for one month, groups 11 and 111 received the same doses of corticosteroids in addition to the oil extract of Nigella Sativa in the from of capsules (Baraka) for group 11 and capsules containing 300 mg. of crushed seeds of Nigella Sativa for group 111. All patients were investigated by :

1-Screening tests for haemostasis: platelet count. prothrombin time, activated partial thromboplastin time .

2- Estimation of immunoglobulins IgG, IgM and IgA .

3-Determination of platelet antibody titre: Direct (cell) and indirect (serum) by immunofluorescence test .

After treatment the majority of patients showed variable degrees of increments of platelet count. However, the levels were still below the lower limits of normal. There was a significant increase in serum IgG and IgM only in ITP cases when compared to control group. However, no significant differences were observed among disease groups .

The majority of patients in the three groups showed positivity for either the direct or the indirect immunofluorescence test for antiplatelet antibodies at a low titre (i.e. 1/10 & 1/20). On the other hand variable degrees of positivity was observed at dilutions of 1/40 & 1/80).

After treatment, the best results were observed in group 111 who received prednisone therapy in addition to crushed seeds of Nigella Sativa. In this group the direct antiplatelet antibody became negative for either IgG, IgM and C3 at the highest titre (i.e. 1/80), also, the indirect antiplatelet antibody test was negative for IgG and 1gM. The other groups showed variable degrees of positivity for either the bound or free antiplatelet antibody. In conclusion, Nigella Sativa in the form of crushed seeds or oil increases the levels of serum immunoglobulins (1gM, 1gG and IgA) and inhibits platelet antibodies, so it has an immune enhancing effect .

(Lambs)

NO	**:**	419
TITLE	**:**	Changes in Certain Blood and Milk Constituents During the First 5 Weeks Post-Lambing in Coarse-Wool Ewes of Upper Egypt.
AUTHORS	**:**	H.A. Daghash; M.M. Shetaewi and N.M. Saad*.
ADDRESS	**:**	Dept. of Animal Production, Faculty of Agriculture and *Food Control, Faculty of Vet. Med., Assiut University.
BULLETIN	**:**	Assiut Vet. Med., J., Vol. 29, No 58, July 1993 .

ABSTRACT

Ten coarse-wool Saidi ewes of Upper Egypt were utilized to study changes in certain blood and milk constituents and somatic cell counts during the first 5 weeks post-lambing. The overall means of milk protein, fat lactose, chloride percentages were 5.61, 7.37, 4.45 and 0.08 respectively. Milk protein, fat and chloride percentages were higher during the 1st wk of lactation compared with other weeks. A significant positive correlation ($r = +0.5$, $P<0.01$) was obtained between milk protein and fat percentages. Lactose percentage reached the highest level during the 2nd wk (5.8%) and the lowest level during the 5th wk (3.5%, $P<0.05$). The overall mean of somatic cell counts was 709.044×10^3 cell/ml. The high somatic cell count was observed at wk 5 of lactation and coincided with the lowest level of Lactose Significant changes ($P <0.05$) occurred in serum total protein, cholesterol, and urea through lactation weeks. Serum globulin was highest ($P<0.07$) during the 5th wk (4.18 g/dl) which indicate increased rate of immunoglobulin biosynthesis. Changes in serum glucose and albumin were not significant.

(Meat)

NO : 420

TITLE : Detection of Lard Adulteration in Pure Beef Tallow.

AUTHORS : H. Youssef; M.R.A. Rashwan*; Sh. M. Fathi and S. Ahmed**.

ADDRESS : Dept of Food Hygiene, Fac. of Vet. Med., *Food Sci. and Tech., Fac. of Agric., Assiut University and **Research Institute of Animal Health, Assiut.

BULLETIN : Assiut Vet. Med. J. Vol. 28, No 56 January 1993 .

ABSTRACT

This investigation was carried out In an attempt to find a reliable method which can be used in a quality control laboratory for the detection of lard adulteration in beef tallow. The laboratory technique is based on the Gas Liquid Chromatographic analysis of fatty acids composition in total extracted fat as well as in triglycerides and B-monoglycerides. The adulteration of the studied beef tallow samples with lard is made from some calculated ratios depending on the fatty acids composition of pure lard and beef tallow. The obtained results showed that lard contained more unsaturated fatty acids (66.53%) than beef tallow (45.38%). while total saturated fatty acids was much higher in beef tallow (52.59%) than in lard (31.97%). In addition, the stearic acid ($C_{18:0}$) was lower in lard (12.33%) than in beef tallow (16.40%) and the linoleic acid (C18:2 in lard and beef tallow was found to be 14.79% and 3.39%, respectively. The saturated fatty acids/unsaturated fatty acide ratio was much higher in beef tallow (1.1) than in lard (0.48). Palmitic acid (C16:0) of lard is mainly incorporated in B-monoglycerides (85.37%), while oleic acid (C18:1) was the predominated acid in B-monoglycerides of beef tallow (48.33%). On the other side, oleic acid (C18:1) was highly concentrated in the triglycerides of either beef tallow and lard (46.23% and 47.41%), respectively. Palmitic acid enrichment factor was 0.85 and 2.06 in beef tallow and lard, respectively. The unsaturation ratio was rather low in lard (0.51) than in beef tallow (1.09), while the total (C16/total C18 fatty acids in B-monoglycerides was much higher in lard (1.85) than in beef tallow (0.34), also the percent of saturated/unsaturated fatty acids in B-monoglycerides was rather high in lard (0.77) as compared with that in beef (0.51). Estimation of lard in unknown samples, is made by determining the percentage of linoleic acid content and taking the corresponding percentage of lard from the standard curve.

(Meat)

NO : 421

TITLE : Detection of Lard Adulteration in some Imported Meat Products .

AUTHORS : H. Youssef; M.R.A. Rashwan*; Sh.M. Fathi and S. Ahmed.

ADDRESS : Dept. of Food Hygiene, Fac. of Vet. Med., *Food Science and Technology, Fac. of Agric., Assiut Univ. and Research Institute of Animal Health, Assiut

BULLETIN : Assiut vet. Med. J. Vol. 29, No 57, April 1993 .

ABSTRACT

Studies on detection of lard adulteration in some imported meat products were carried out. Distribution of fatty acids within B-monoglycerides and triglycerides of imported meat product was studied using Gas Liquid Chromatographic technique. The obtained data showed that the palmitic acid enrichment factor was relatively high in both types of canned luncheon meat (Groot and Bristol). Accordingly this would indicate the presence of lard at 9% more. Moreover, corned beef was shown to contain about 3% lard or more. Generally, the palmitic acid enrichment factor, unsaturation ratio, total C16/ total C18 fatty acids and saturated/ unsaturated fatty acids ratios could be recommended as a criteria for lard detection in meat products .

(Mice)

NO : 422

TITLE : Red Blood Cell Picture and Total Leucocytic Count in Albino Mice Intoxicated With Allium Sativum L. .

AUTHORS : M. H. Karram, A. Shehata., Th. A. Ibraheem .

ADDRESS : Dept. of Forensic, Faculty of Vet. Med., Assiut University.

BULLETIN : Assiut Vet. Med. journal Vol. 22, No. 44, January 1990.

ABSTRACT

Haemogram findings during garlic toxicity were studied on 300 albino mice (20-53 gm). The mice were given daily 1/10 LD_{50} of crude hexane extract and its three fractions (A, B, C) for 8 weeks . Haematological results revealed a marked decrease in the total RBCs, Hb concentration, PCV and MCHC, while there was a highly significant elevation in the MCV which indicates a case of macorocytic hypochromic anaemia. Also Heinz bodies were demonstrated in stained blood films of toxicated mice. Leucocytosis was evident along the period of the experiment .

(Mice)

NO : 423

TITLE : Determination of LD_{50} of Allium Sativum L. in Male Albino Mice .

AUTHORS : M. A. El-Shanawany*, A. Shehata, Th. A. Ibrahim and M. A. Abdel-Mohesn .

ADDRESS : Dept. of Forensic Med. & Toxicology, Faculty of Vet. Med. and *Pharmac., Faculty of Pharm., Assiut University.

BULLETIN : Proceedings of XXI Conference of Pharmaceutical Sciences P. 23-31,1991.

ABSTRACT

Allium sativum L. (Garlic) hexane extract as well as the oil samples (A, B and C) were found to be toxic to albino mice. The LD_{50} (with confidence limits of 19/20) of the crude hexane extract and the different oil samples (A, B and C) were 350 (330.4 to 370.76) mg/kg; 312.5 (276.55 to 353.12) mg/kg, 255(233.95 to 277.95) mg/kg, and 225 (200.89 to 252) mg/kg respectively against male albino mice. Our results revealed that oil sample C was more toxic in comparison with the other two samples A and B and the crude hexane extract.

NO : 424

TITLE : Effect of Allium Sativum L. (Garlic) on Some Enzymatic Activities of Albino Mice.

AUTHORS : A. Shehata, M. A. El-Shanawany*, M. H. Karram and M. A. Abdel-Mohesn .

ADDRESS : Dept. of Forensic Med. and Toxicology, Faculty of Vet. Med. *Pharmac., Faculty of Pharm., Assiut University.

BULLETIN : Proceedings of XXI Conf. of Pharmaceutical Sci. P.3 09-315, 1991.

ABSTRACT

Five groups of albino mice (60 animals each) were used in the present study. The first 4 groups were incubated daily with 1/10 LD_{50} of A. sativum L. hexane extract, oil samples "A", "B" and "C" respectively for eight weeks. Enzymatic activity of Aspartic Amino Transferase (ASAT), Alanine Amino Transferase (ALAT) and alkaline phosphatase were investigated. All enzymatic activities of ASAT, ALAT, and alkaline phosphatase estimated in our long-term toxicity study, showed a highly significant elevation during the whole period of the experiment.

We can conclude that this investigation indicated the hazardous toxic effects of long-term exposure of both human and animals to garlic, even in small doses.

(Mice)

NO : 425

TITLE : Toxo-Pathological Effects of Allium Sativum L. on Mice.

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BULLETIN : Egypt. J. Compar. Pathol. Clin. Pathol. Vol. 4 , No. 2, 1991.

ABSTRACT

A total number of 120 male albino rate were used. To study the acute toxicity, groups of animals were given crude extract of Allium sativum L. and oil samples A, B, and C at a dose level of 200-600, 200-450, 210-310, and 180-280 mg/kg body weight respectively. To study long-term toxicity, groups of animals were given crude hexane extract of A. sativum L. and oil samples A, B and C at a dose level of 25, 37.35, 25.5 and 22.5 mg/kg body weight for 8 weeks. Pathological examination of acute and chronic intoxicated animals revealed the presence of subcutaneous gelatinous oedema, garlic odour, marked congestion in the lung, heart, spleen, testicles, stomach, intestine, and brain . The intestine was filled with blood-stained mucoid fluid. The urinary bladder was distended and filled with viscous urine. Severe congestion with minute subcapsular haemorrhages were seen in the liver. The gall-bladder was distended. In chronic intoxicated animals, moreover, there was enlargement and congestion of the spleen .

NO : 426

TITLE : Effect of Aqueous Extracts of Garlic (Allium Sativum) and Onion (Allium Cepa) on Lipid and Carbohydrate Metabolism in Alloxan-Diabetic Mice .

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BULLETIN : Assiut, Vet. Med. J. Vol. 30, No 59, October, 1993 .

ABSTRACT

Injected mice with alloxan to induce diabetes; hyperglycemia and hyperilipidamia were examined to show the short-term treatment (7 days) with dietary garlic Allium sativum and *onion Allium* cepa. Utilizations of body carbohydrate and lipids in alloxan-diabetic mice were investigated. The treatment showed that garlic decreased levels of blood glucose, liver glycogen and total lipids, while muscle glycogen was elevated. Onion decreased the total lipids in liver and muscle, while glucose and glycogen had not affected. These observations emphasize that garlic extract may in vivo enhance the muscle uptake of glucose. However, the study denotes that both of onion and garlic extract decreases the level of accumulation of liver total lipids in diabetic animal. Also, it could be claimed that dietary garlic and onion act as *antidiabetic* agents. Moreover, the dietary garlic has more potent *antidabetic* effect than that of onion.

(Plants)

NO	**:**	427
TITLE	**:**	Environmental Studies on Salt Secreting Plants in Egypt.
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BULLETIN	**:**	Thesis, (Ph.D), 1993.

ABSTRACT

This investigation is aimed to study the ecology of salt secreting halophytes in the arid and semiarid regions of Egypt. Sixteen stands located in three regions were chosen for this study namely : Red sea coast (eight stands); the eastern side of the Gulf of Suez (three stands); and the western Mediterranean coast (five stands).

These stands were chosen because there were many salt secreting species inhabiting them. Twelve species were included in this study, i.e *Atriplex halimus, A. limonium pruinosum, L.axillare, limoniastrum monopetalum, Tamarix nilotica, T.amplexicaulis, T.passerinoides, Frankenia revoluta, Avicennia marina, and Aeluropus lagopoides*. The investigations were conducted in both the dry and wet seasons to cover the seasonal changes. The plan of study was designed to test the following parameters :

General anatomical structure of salt glands of each species,measurements of transpiration and sodium secretion rates and analyses of curves. The average daily values of water loss and excretion were computed.

Measurements of the changes in plant sodium content through the whole day, The concentrations of sodium in the transpiration stream were also calculated .