

|                |   |                               |                      |
|----------------|---|-------------------------------|----------------------|
| Name (English) | Ali Hafez Ali Mohamed El-Far              | على حافظ على محمد الفار       | الإسم باللغة العربية |
| University     | Damanhour                                 | دمهور                         | جامعة                |
| Faculty        | Fac. of Vet. Med.                         | كلية الطب البيطرى             | الكلية               |
| Department     | Biochemistry                              | الكيمياء الحيوية              | القسم                |
| Specialization | Biochemistry and Clinical<br>Biochemistry | الكيمياء الحيوية والإكلينيكية | التخصص<br>الدقيق     |
| E.Mail         | ali.elfar@damanhour.edu.eg                | ali.elfar@damanhour.edu.eg    | البريد الإلكتروني    |
| Tel.           | 01009612452                               | 01009612452                   | التليفون             |
| Fax            | (+2 ) 0453591018                          | (+2 ) 0453591018              | الفاكس               |

il units  
FACULTY OF VETERINARY MEDICINE  
DAMANHOUR UNIVERSITY

|               |  |
|---------------|--|
| Title         | The Ameliorative Effect of Phoenix Dactylifera Extract on CCl <sub>4</sub> Hepatotoxicity in New Zealand Rabbits   |
| Author        | Usama B. El-Gazzar <b>Ali H. El-Far</b> , 2Hussein A. Abdel maksoud<br>1Department of biochemistry - Faculty of Veterinary medicine - Alexandria University - Damanhour Branch (Al-Bostan) - Egypt. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a><br>2Department of biochemistry - Faculty of Veterinary medicine - Banha University (Moshtohor) - Egypt.   |
| Abstract      | The present study was conducted to evaluate the hepatoprotective effect of The date flesh (Phoenix dactylifera L.) against carbon tetrachloride (CCl <sub>4</sub> ) hepatotoxicity and improvement of Immune functions which affected by free radicals liberating CCL <sub>4</sub> in New Zealand rabbits. Fruits of the date palm (Phoenix dactylifera) are very commonly consumed in many parts of the world, and are a vital component of the diet in most of the Arabian countries. According to Prophet Mohammad (peace be upon him) says many Muslims believe that consumption of dates, particularly in the morning on an empty stomach, can reverse the actions of any toxic material that the subject may have been exposed to. Accordingly, carbon tetrachloride (CCL <sub>4</sub> ) hepatotoxicity was induced in rabbits in order to study the hepatoprotective activity of dates flesh (Phoenix dactylifera). Sixty New Zealand rabbits weighing about 1Kg were assigned to six groups, (ten/group). G1 was control, G2 received a single dose of Siwa date palm extract orally, G3 injected S/C with 1.0 ml CCL <sub>4</sub> solution /Kg, G4 injected S/C with 2.0 ml CCL <sub>4</sub> solution /Kg, G5 and G6 pretreated with a single dose a single dose of 15 ml of Siwa date palm extract orally. After 6, 12, 24 and 48 hours post-treatment blood samples were collected from the ear vein. The sera were separated and used for determining of ALT, AST and IgG, IgM and IgA and the liver homogenates for estimation of MDA and GSH as a biomarker of lipid peroxidation and antioxidative stress. The obtained results revealed that, CCL <sub>4</sub> caused significant increases in the levels of ALT and AST in (G3,G4) but treatment with Siwa date palm extract caused marked ameliorations of transaminase enzymes activity ALT and AST in (G5,G6). Moreover, there was a significant increase in MDA and decrease of GSH due to the oxidative stress induced by CCL <sub>4</sub> on membrane polyunsaturated fatty acids in rabbit's liver while Pretreatment with Siwa date palm extract, was significantly ameliorated the increased levels of MDA and decline of GSH in the liver tissue caused by CCL <sub>4</sub> hepatotoxicity. Meanwhile, Siwa date palm extract significantly increase in immune functions (IgG, IgM and IgA) in G2 while CCL <sub>4</sub> significantly decrease it specially IgG in a dose and time dependant (G3,G4). On the other hand, Pretreatment with Siwa date palm extract in G5, G6 elevated those levels near to the control. Thus, This study suggests that CCL <sub>4</sub> -induced liver damage in rabbits can be ameliorated by administration of extract of date flesh. |
| Keywords:     | Hepatoprotective; Hepatotoxicity; Phoenix Dactylifera; carbon tetrachloride.   |
| Published In: | Journal of Applied Sciences Research, 5(9): 1082-1087, 2009  |
| References    | Copley, M.S., P.J. Rose, A. Clampham, D.N. Edwards, M.C. Horton, R.P. Evershed, 2001. Detection of palm fruit lipids in archaeological pottery from Qasr Ibrim, Egyptian Nubia. Proceedings of the Royal Society, London., 268: 593-597.<br>2. Miller, C.J., Dunn, E.V., Hashim, I.B., (2003): The glycaemic index of dates and date /yoghurt mixed meals. Are dates "the candy that grows on trees"? European Journal of Clinical Nutrition 57, 427- 430.   |

|               |  |
|---------------|--|
| Title         | Effect of Tonilissat and Roemin W2 Supplementations on the Performance of Lambs  |
| Author        | A.M. Ismaiel*, <b>Ali Hafez El-Far*</b> φ and Abou-Ganema I. I*®<br>*Animal and Poultry Production Department, Faculty of Agriculture, Alexandria University, Damanhour Branch (Al-Bostan), Egypt.<br>*φ Department of Biochemistry, Faculty of Veterinary Medicine, Alexandria University, Damanhour Branch (Al-Bostan), Egypt. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a><br>*® Department of Physiology, Faculty of Veterinary Medicine, Alexandria University, Damanhour Branch (Al-Bostan), Egypt.  |
| Abstract      | A thirty Rahmani weaned male lambs of average body weight (27.28±1.40 kg) were randomly allotted to three similar groups, ten lambs in each, to study the benefit of commercial feed additives Tonilissat ( <i>Saccharomyces cerevisiae</i> ) and Roemin W2 ( <i>Lactobacillus acidophilus</i> , <i>Lactobacillus thermophilus</i> , <i>Bifidobacterium</i> and Lactose) as growth promoters on lambs performance, digestibility, rumen activity and some blood constituents. The experiment lasted about 107 days. Three experimental groups were allotted as control group: received the basal ration, T1 group: received the basal ration supplemented with Tonilissat as (0.5kg/ ton concentrate feed mixture) and T2 group: received the basal ration supplemented with Roemin W2 (1kg/ ton concentrate feed mixture). Our study revealed that addition of Tonilissat significantly increased digestion coefficient of crude protein than that of the control group, Furthermore, the supplementation of Tonilissat or Roemin W2 increased (p<0.05) crude fiber digestibility than control group. Total digestible nutrients and crude digestible protein were not significantly changed between treatments. Retained nitrogen was higher in treated lamb groups than untreated but the different was non significant. Rumen activity of different rations showed that volatile fatty acids concentrations for Tonilissat and Roemin W2 groups were higher than control group, but the differences were not significant. There are no significant changes between groups in tested blood parameters but in T1 group ALT and AST were decreased. Conclusion: Supplementation of the lamb's rations with probiotics had a non significant effect (p<0.05) on blood constituents. While, growth performance and economic efficiency revealed that Tonilissat supplemented lambs had the best average daily gain followed by Roemin W2 treated group in comparison with control group. The best economic efficiency was recorded for T1 which fed Tonilissat followed by control group at whole period. |
| Keywords:     | Rahmani sheep, Tonilissat, Roemin W2, Growth, Performance.   |
| Published In: | International Journal of Biological and Life Sciences 6:4 (2010)   |
| References    | [1] B.M. Ahmed, and M.S. Salah, "Effect of yeast culture as an additive to sheep feed on performance, digestibility, nitrogen balance and rumen fermentation". J. Agric, Sci., 1, (14):1-13. 2006.<br>[2] M.A. Ali, "Effect of probiotic addition on growth performance of growing lambs fed different roughages". Egyptian J. Nutrition and feeds, 8: 567-578. 2005.  |

|               |  |
|---------------|--|
| Title         | Biochemical Changes in Glutathione Redox System and Glucose Regulation in Late Pregnant Ossimi Ewes  |
| Author        | <b><u>Ali Hafez El-Far</u></b> *1, Mohamed K. Mahfouz2 and Hussein A. Abdel maksoud2<br><br>1 Department of Biochemistry, Faculty of Veterinary Medicine, Alexandria University, Damanhour Branch (Al-Bostan), Egypt.<br>2Department of Biochemistry, Faculty of Veterinary medicine, Moshtohor, Banha University, Egypt. ali.elfar@damanhour.edu.eg   |
| Abstract      | Pregnancy is the more prevalent stress in under feeding small ruminant with multiple bearing. Fifty Ossimi ewes of two years old and their body weight ranging between 35 and 50 kg were allotted into three groups; Group I: contains ten non pregnant non lactating ewes were used as control group. Group II: contains twenty single pregnant ewes* and Group III: contains twenty twin pregnant ewes used as experimental animals. Our study focused on the comparison between single and twin bearing ossimi ewes in the last four weeks of pregnancy and the day of parturition by measurement of reduced glutathione (GSH) level and the activities glutathione peroxidase (GSH-Px); glutathione reductase (GR-ase); glutathione-S-transferase (GST) and total superoxide dismutase (t-SOD) in erythrocytic haemolysate. In addition, glucose, non esterified fatty acid (NEFA), Beta hydroxyl butyric acid (BHBA), cortisol, insulin and protein electrophoric patterns were measured in serum. Our results concluded that, In erythrocytic haemolysate the mean values of GSH-Px and GST in group II and III during the period of 2nd and last week before parturition and at the day of parturition were high significantly increased. While, GSH and t-SOD were high significantly decreased ( $P < 0.01$ ) and GR-ase activities were significantly decreased. While serum insulin level decreased while serum NEFA, BHBA and cortisol were increased in single and twin but in twin the values is more significant. The data showed that twin bearing ewes are more susceptible to pregnancy toxemia than single bearing that may be influence the productivity and performance of those animals. |
| Keywords:     | pregnancy, glutathione, single bearing, twin bearing, ewes   |
| Published In: | Journal of American Science, 2010;6(12)  |
| References    | Abd-Elghany, Hefnawy, S. Y. and Saad S. (2010): Some Immunohormonal Changes in Experimentally Pregnant Toxemic Goats, Veterinary Medicine International, Volume, Article ID 768438. 100- 11.<br>Abdel-Maksoud, H.A.A; Omayma A. R.; Mohamed K. M. M. and Yakout A.Y. E. (2000): Biochemical changes of glutathione redox system, some erythrocytic enzymes; serum proteins and trace elements of theileria infested buffaloes. The Egyptian Journal of Biochemistry, Vol. 18 No. 1, pp 121- 134.   |

|               |  |
|---------------|--|
| Title         | Influences of somatic cell count on milk composition and dairy farm profitability  |
| Author        | <p>ABDELGAWAD SALAH EL-TAHAWY1* and <b><u>ALI HAFEZ EL-FAR2</u></b></p> <p>1Department of Animal Husbandry and Wealth Development and 2Department of Biochemistry, Faculty of Veterinary Medicine (El-Bostan), Alexandria University, (Damanhour Branch), Behera, Egypt<br/> <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a></p>  |
| Abstract      | <p>The objective of this paper was to investigate seasonal variations in bulk somatic cell totals and milk composition, evaluate the influence of somatic cell count (SCC) on milk fat and protein content and determine the effects of SCC on dairy farm profitability. A total of 1440 samples were analyzed. Data were obtained by randomly collecting five samples of bulk tank milk from each of 24 dairy farms every month from April 2008 to March 2009. Milk was analysed for titratable protein, fat content and SCC (direct microscopic cell count). The highest total bulk SCCs were observed during autumn and winter. Conversely, higher levels of milk fat and protein were generated during spring and summer. A significant negative correlation was noted between SCC and milk composition, daily milk yield and milk returns. By logarithmic function, a significant negative relationship was observed between SCC and milk composition or milk returns. In conclusion, this study demonstrates that the SCC is a useful tool for judging dairy farm profit and milk quality.</p> |
| Keywords:     | Somatic cell count, Milk return, Correlation coefficient, Milk composition.  |
| Published In: | Vol 63, No 3 August 2010 International Journal of Dairy Technology   |
| References    | <p>Abascal G, Carriedo J A, Blanco M A, Beneitez E, Jua´rez M T, De La Fuente L F and San Primitivo F (2005) Factors of variation influencing bulk tank somatic cell count in dairy sheep. <i>Journal of Dairy Science</i> 88 969–974.</p> <p>AICL (2004) Somatic Cell Count Display. Agricultural Instruments Canada Ltd. 15 Pykeview Gananoque, Ontario.</p> <p>Albenzio M, Caroprese M, Santillo A, Marino R, Muscio A and Sevi A (2005) Proteolytic patterns of plasmin activity in ewe’s milk as affected by somatic cell count and stage of lactation. <i>Journal of Dairy Research</i> 72 86–92.</p>  |

|               |   |
|---------------|---|
| Title         | BIOCHEMICAL EFFECTS OF LONG DURATION OF SEDATION ON NEUROTRANSMITTERS, PROTEIN FRACTIONS AND IMMUNOGLOBULINS  |
| Author        | Mohamed K. Mahfouz <sup>1</sup> , <b>El-Far, A. H.2</b> , Hussein A. Abdel Maksoud <sup>1</sup><br>1Department of Biochemistry, Fac. of Vet. Med., Moshtohor, Banha Univ., Egypt<br>2Department of Biochemistry, Fac. of Vet. Med., Damanhour Univ., Egypt<br>e-mail: <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a>  |
| Abstract      | The present study was planned to know the biochemical effect of the long period of sedation on neurotransmitters, protein fractions and immunoglobulins. For this aim thirty adult male albino rats were allotted into two groups, control group of 10 rats were injected with an equivalent volume of physiological saline and the remained 20 rats were utilized as experimental group, injected with a long period of sedation (midazolam)-12 weeks. After that period, some neurotransmitters (adrenaline, dopamine and histamine) and serum components (serotonin, cholinesterase, protein electrophoresis, IgG, IgM, IgE and IgA) were investigated. Our study revealed that, injection of midazolam for 12 weeks has no obvious changes in the investigated neurotransmitters, serum electrophoretic pattern and immunoglobulins except a significant increase in Cholinesterase enzyme activities at 3 <sup>rd</sup> and 4 <sup>th</sup> weeks of experiment. |
| Keywords:     | Midazolam, Neurotransmitters, Protein Fractions, Immunoglobulins  |
| Published In: | Universitatea de Științe Agricole și Medicină Veterinară Iași Lucrări Științifice - vol. 55, Seria Zootehnie, 2011  |
| References    | [1] Lewis, D. A.: Dopamine systems in the primate brain. In, Handbook of Chemical Neuroanatomy. Vol. 13. (Bloom, F. E., Bjorklund, A. and Hökfelt, T. eds.) Elsevier, Amsterdam, 1997, pp. 263-375.<br>[2] Baraldi, P. G.; Cacciari, B.; Romagnoli, R.; Merighi, S.; Varani, K.; Borea, P.A. and Spalluto, G.: A(3) adenosine receptor ligands: history and perspectives. Med. Res. Rev., 2000, 20: 103-128.<br>[3] Gindi, R., R.: Biochemical Studies of Some Sedatives in rats, PhD thesis, Faculty of Veterinary Medicine (Moshtohor), Benha University, 2007.   |

FACULTY OF VETERINARY MEDICINE  
DAMANHOUR UNIVERSITY

|               |   |
|---------------|---|
| Title         | THE BIOCHEMICAL PROTECTIVE ROLE OF SOME HERBS AGAINST AFLATOXICOSIS IN DUCKLINGS: II. NIGELLA SATIVA  |
| Author        | Ayoub, M., M.1, <b>El-Far, A., H.</b> 2, Taha, N., M.3, Korshom, M., A.3, Mandour, A., A.3, Abdel-Hamid, H., S.4, El-Neweshy, M., S.5<br><br>1Central Laboratory of Residue Analysis of Pesticide Residues & Heavy Metals in Food, Dokki-Cairo, Egypt<br>2Department of Biochemistry, Fac. of Vet. Med., Damanshour Univ., Egypt<br>3Department of Biochemistry, Fac. of Vet. Med., Alexandria Univ., Egypt<br>4Department of Poultry and Fish Diseases and the Dean of Fac. of Vet. Med., Damanshour Univ., Egypt<br>5Department of Pathology and parasitology, Fac. of Vet. Med., Alexandria Univ., Egypt<br>e-mail: <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a>   |
| Abstract      | Objective - Our study was aimed to study the adverse effects of aflatoxin on some biochemical parameters in serum and liver of duckling as well as to evaluate the possible protective effects of Nigella sativa crushed seeds against the adverse effects of aflatoxin. Moreover, this experiment was extended to explore if these herb can decrease the production of aflatoxin in vitro by Aspergillus flavus toxigenic strain. Design - in vitro and in vivo experimentation, serum parameters, malondialdehyde (MDA), Glutathione (GSH), Glutathione S-transferase (GST) and aflatoxin residues. Results - Aflatoxin produced by Aspergillus flavus toxigenic strain was selected as a potent and widely distributed hepatotoxin that induces much health and economic hazards in animal and human. Aspergillus flavus was cultivated on rice to produce the aflatoxin used in the present study. Ducklings were allotted to control, aflatoxin treated, Nigella sativa and aflatoxin and Nigella sativa groups. Total proteins, albumin, globulins, alanine aminotransferase (ALT) (EC 2.6.1.1) and aspartate aminotransferase (AST) (EC 2.6.1.2), cholesterol and triacylglycerols were measured in serum. The levels of hepatic Malondialdehyde and Glutathione level, Glutathione S-transferase (GST) (EC: 2.5.1.18) activity, aflatoxin residues and histopathological changes were also measured. The obtained results suggest that the addition of Nigella sativa to duckling's ration has a protective effect against aflatoxicosis. Conclusions - From the obtained results, it can conclude that aflatoxin has hepatotoxic effects through decrease of total proteins, albumin, glutathione and glutathione S-transferase. Moreover, increase ALT, AST, cholesterol, triacylglycerols and lipid peroxidation levels. In addition, aflatoxin induced histopathological changes of liver and residues of aflatoxin were measured. While, addition of Nigella sativa to duckling's diet were induced a protective effect against aflatoxicosis. So, we advise to use Nigella sativa as a feed additive to control aflatoxicosis in poultry farms. |
| Keywords:     | Aspergillus flavus; Aflatoxin; Nigella sativa; antioxidant; Hepatoprotection  |
| Published In: | Universitatea de Științe Agricole și Medicină Veterinară Iași Lucrări Științifice - vol. 55, Seria Zootehnie, 2011.   |
| References    | [1] CAST (Council for Agriculture, Science and Technology): Mycotoxins: Risks in Plant, Animal and Human Systems. In: Task force report No. 139. Ames, Iowa, USA, 2003.<br>[2] Jackson, P., E., and Groopman, J., D.: Aflatoxin and liver cancer. Bailliere's Best Pract. Res. Clin. Gastroenterology, 1999, 13(4): 545-555.  |

|       |   |
|-------|---|
| Title | THE BIOCHEMICAL PROTECTIVE ROLE OF SOME HERBS AGAINST |
|-------|---|

## AFLATOXICOSIS IN DUCKLINGS: I. TURMERIC

|               |   |
|---------------|---|
| Author        | <p style="text-align: center;">Ayoub, M., M.1, <b>El-Far, A., H.</b>2, Taha, N., M.3, Korshom, M., A.3, Mandour, A., A.3, Abdel-Hamid, H., S.4, El-Neweshy, M., S.5</p> <p style="text-align: center;">1Central Laboratory of Residue Analysis of Pesticide Residues and Heavy Metals in Food, Dokki-Cairo, Egypt<br/>                 2Department of Biochemistry, Fac. of Vet. Med., Damanshour Univ., Egypt<br/>                 3Department of Biochemistry, Fac. of Vet. Med., Alexandria Univ., Egypt<br/>                 4Department of Poultry and Fish Diseases and the Dean Fac. of Vet. Med., Damanshour Univ., Egypt<br/>                 5Department of Pathology and parasitology, Fac. of Vet. Med., Alexandria Univ., Egypt<br/>                 e-mail: <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a></p>  |
| Abstract      | <p>Objective - The aim of this study was planned to throw the light on the hepatotoxic effects of aflatoxin in duck and to evaluate the effects turmeric (<i>Curcuma longa</i> ground roots) for protection against aflatoxicosis and to explore if they can decrease the aflatoxin production by <i>Aspergillus flavus</i> toxigenic strain on poultry diet. Design - in vitro and in vivo experimentation, malondialdehyde (MDA), Glutathione (GSH) and aflatoxin residues. Results - Aflatoxin (AF) from <i>Aspergillus flavus</i> toxigenic strain was selected as a potent and widely distributed hepatotoxin that induces much health and economic hazards in animal and human. <i>Aspergillus flavus</i> was cultivated on rice to produce the aflatoxin that is used in the present study. Pekin ducklings were allotted to control, aflatoxin treated, turmeric and aflatoxin and turmeric groups. Total proteins, albumin, alanine aminotransferase (ALT) (EC 2.6.1.1) and aspartate aminotransferase (AST) (EC 2.6.1.2), cholesterol and triacylglycerols were measured in serum. The levels of hepatic Malondialdehyde and Glutathione levels and aflatoxin residues were also measured. Conclusions - From the obtained results, it can conclude that aflatoxin has hepatotoxic effects through decrease of total proteins, albumin and glutathione. Moreover, increase ALT, AST, cholesterol, triacylglycerols and lipid peroxidation levels. In addition, aflatoxin induced histopathological changes of liver and residues of aflatoxin were measured. Addition of turmeric to duckling's ration were induced a protective effect against aflatoxicosis. So, we advise to use turmeric as a feed additive in poultry farms.</p> |
| Keywords:     | <i>Aspergillus flavus</i> ; Aflatoxin; Turmeric; Aflatoxin residues   |
| Published In: | Universitatea de Științe Agricole și Medicină Veterinară Iași Lucrări Științifice - vol. 55, Seria Zootehnie, 2011.   |
| References    | <p>[1] Hussein, S. H and Jeffrey M. B.: Toxicity, metabolism, and impact of mycotoxins on humans and animals. <i>Toxicology</i>, 2001, 167 (2): 101-134.</p> <p>[2] Smith, J. E., Solomons, G., Lewis, C., and Anderson, J. G.: Role of mycotoxins in human and animal nutrition and health. <i>Nat. Toxins</i>, 1995, 3:187-192.</p> <p>[3] Ledoux, D. R., Rottinghaus, G. E. Bermudez, A. J. and Alonso-Debolt, M.: Efficacy of hydrated sodium calcium aluminosilicate to ameliorate the toxic effects of aflatoxin in broiler chicks. <i>Poult. Sci.</i>, 1998, 77:204-210.</p>   |



|               |   |
|---------------|---|
| Title         | Effect of Ginger and L-Carnitine on the Reproductive Performance of Male Rats   |
| Author        | <p>Ismail I. Abo-Ghanema, El-Nasharty M.A., <b>El-Far A. H.</b>, and Hanan A.Ghonium</p> <p>Ismail I. Abo-Ghanema is with Damanshour University, Faculty of Veterinary Medicine, Department of Physiology, Egypt (e-mail: yousismail@yahoo.com).</p> <p>El-Nasharty M.A. is with Damanshour University, Faculty of Veterinary Medicine, Department of Histology, Egypt.</p> <p>El-Far A.H is with Damanshour University, Faculty of Veterinary Medicine, Department of Biochemistry, Egypt. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a></p> <p>Hanan A.Ghonium is with Damanshour University, Faculty of Veterinary Medicine, Department of Physiology, Egypt.</p>   |
| Abstract      | <p>In this study, we investigated the effects of ginger and L-carnitine on the reproductive performance of male rats with respect to semen parameters, male sex hormones and the testicular antioxidant system. A total of sixty mature male albino rats were divided into four groups of fifteen rats. The control group received saline, whereas the other three groups received ginger (100 mg kg<sup>-1</sup> d<sup>-1</sup>), L-carnitine (150 mg kg<sup>-1</sup> d<sup>-1</sup>) or a combination of both ginger (100 mg kg<sup>-1</sup> d<sup>-1</sup>) and L-carnitine (150 mg kg<sup>-1</sup> d<sup>-1</sup>) via a stomach tube daily for one month. At the end of the treatment period, the rats were sacrificed, and their sperm characteristics (count, motility and viability), antioxidant enzyme factors levels (reduced glutathione, catalase, superoxide dismutase and total antioxidant capacity) and sex hormone levels (testosterone, Follicle stimulating hormone (FSH) and luteinizing hormone (LH) were analyzed. Our results showed that the three experimental treatments improved sperm parameters, antioxidant enzyme activity and testosterone hormone levels; the most pronounced positive effects were observed in the group that received a combination of both ginger and L-carnitine. Therefore, the administration of a combination of ginger and L-carnitine may be beneficial for improving male sexual performance.</p> |
| Keywords:     | Keywords—Ginger, L-Carnitine, Spermatogenesis, Rats.  |
| Published In: | World Academy of Science, Engineering and Technology 64 (2012)  |
| References    | <p>Mascolo, N.; Jain, R.; Tain, S.C. and Capasso, F.J. (1989): Ethnopharmacologic investigation of ginger (<i>Zingiber officinale</i>). <i>J. Ethano Pharmacol.</i> 27(1-2), 129-140.</p> <p>Kamtchoung, P.; Mbongue-Fandio, G.Y.; Dimo, T. and Jatsa, H.B. (2002): Evaluation of androgenic activity of <i>Zingiber officinale</i> extract in male rats. <i>Asian J. Androl.</i> 4, 299-301.</p> <p>Amin, A. and Hamza, A.A. (2006): Effects of Rosell and ginger on cisplatin- induced reproductive toxicity in rats. <i>Asian J. Androl.</i> 8(5), 607-612.</p> <p>Foster, D.W. (2004): The role of the carnitine system in human metabolism. <i>Ann N Y Acad.</i></p>   |

|               |   |
|---------------|---|
| Title         | Influence of lighting color on behavior, productive traits and some biochemical changes of Japanese quail ( <i>Coturnix coturnix japonica</i> )   |
| Author        | S.A. Ibrahim <sup>1</sup> ; S. Z. El Kholya <sup>1</sup> ; <b>A.H.El-Far<sup>2</sup></b> and U.E.Mahrous <sup>1</sup><br><br>1 Anim. Husb and Wealth Develop. Dep., Fac. Vet. Med., Damanhour Univ.<br>2 Biochemistry Dep., Fac. Vet. Med., Damanhour Univ. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a>  |
| Abstract      | One hundred and fifty Japanese quail chicks (2-weeks old) were allotted into five groups (n=30). Each pen was separated from other by light proof partitions and subjected into one lighting program (White, Yellow, Blue, Red and Green) by 60 watt colored reflector lamps. The obtained results showed that rearing Japanese quail chicks under red light increased percentages of birds engaged in drinking, running, crouching, huddling and aggressive pecking. While, birds reared under white color exhibited much wing and leg stretching, leg stretching, preening and wall exploratory activities. Moreover, rearing birds under yellow color increased the feeding, standing, wing stretch, leg stretch, ruffling, trough pecking, During early morning exhibited significantly higher levels of feeding, drinking walking, frolicking, stretching activities, body care activities and investigatory activities while, during late afternoon these activities lowered to minimum levels. Moreover, during early afternoon these activities take an intermediate values. Birds usually drink more at the start of day, while it declined gradually towards the end of the day. Rearing Japanese quails under green color light had highest body weight, weight gain during 3rd week of age while white light group showed the lowest. On contrary, birds reared under white color had lower feed conversion. Moreover, rearing Japanese quail under green color had significantly high T3 and T4 hormones than other groups. With concern to cortisol birds reared under white light color had the highest stress effect than others, while lowest level were for blue and yellow light as under green and blue color. Green light group had significantly higher cholesterol level than birds exposed to yellow light color. On contrary, triacylglycerol level was significantly higher in yellow light group while lowest level was in case of birds reared under white color. Females had significantly high level of T3; T4, cortisol and triacylglycerol than males. On contrary, males had significant (P<0.01) high cholesterol level than females. |
| Keywords:     | Light color - Behavior - productive traits - Biochemical changes -Japanese quail  |
| Published In: | World Academy of Science, Engineering and Technology 67 (2012): 1120- 1125  |
| References    | Abd-Elhak. R. (2002): Some aspects of poultry behaviors due to variation in genetic make up M.V.Sc. Thesis, Fac. Vet. Med., Minoufyia Univ.<br>Bowers, C.Y., Chally, C., Gual, C., et al. Biochem. Biophys. R., 39, 353 (1970)<br>Bowlby, G. M. S. (1957): Some preliminary investigations into the effect of light on broilers. Worlds Poult. Sci., 13:214-226.<br>Cave, N. A. (1990): Effects of feeding level during pullet-layer transition and pretransition lighting on performance of broiler breeders. Poult. Sci., 69:1141-1146.   |

|               |   |
|---------------|---|
| Title         | Influence of lighting color on behavior, productive traits and some biochemical changes of Japanese quail ( <i>Coturnix coturnix japonica</i> )   |
| Author        | S.A. Ibrahim <sup>1</sup> ; S. Z. El Kholya <sup>1</sup> ; <b><u>A.H.El-Far<sup>2</sup></u></b> and U.E.Mahrous <sup>1</sup><br><br>1 Anim. Husb and Wealth Develop. Dep., Fac. Vet. Med., Damanhour Univ.<br>2 Biochemistry Dep., Fac. Vet. Med., Damanhour Univ. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a>   |
| Abstract      | One hundred and fifty Japanese quail chicks (2-weeks old) were allotted into five groups (n=30). Each pen was separated from other by light proof partitions and subjected into one lighting program (White, Yellow, Blue, Red and Green) by 60 watt colored reflector lamps. The obtained results showed that rearing Japanese quail chicks under red light increased percentages of birds engaged in drinking, running, crouching, huddling and aggressive pecking. While, birds reared under white color exhibited much wing and leg stretching, leg stretching, preening and wall exploratory activities. Moreover, rearing birds under yellow color increased the feeding, standing, wing stretch, leg stretch, ruffling, trough pecking, During early morning exhibited significantly higher levels of feeding, drinking walking, frolicking, stretching activities, body care activities and investigatory activities while, during late afternoon these activities lowered to minimum levels. Moreover, during early afternoon these activities take an intermediate values. Birds usually drink more at the start of day, while it declined gradually towards the end of the day. Rearing Japanese quails under green color light had highest body weight, weight gain during 3rd week of age while white light group showed the lowest. On contrary, birds reared under white color had lower feed conversion. Moreover, rearing Japanese quail under green color had significantly high T3 and T4 hormones than other groups. With concern to cortisol birds reared under white light color had the highest stress effect than others, while lowest level were for blue and yellow light as under green and blue color. Green light group had significantly higher cholesterol level than birds exposed to yellow light color. On contrary, triacylglycerol level was significantly higher in yellow light group while lowest level was in case of birds reared under white color. Females had significantly high level of T3; T4, cortisol and triacylglycerol than males. On contrary, males had significant (P<0.01) high cholesterol level than females. |
| Keywords:     | Light color - Behavior - productive traits - Biochemical changes -Japanese quail  |
| Published In: | World Academy of Science, Engineering and Technology 67 (2012): 1120- 1125  |
| References    | Abd-Elhak. R. (2002): Some aspects of poultry behaviors due to variation in genetic make up M.V.Sc. Thesis, Fac. Vet. Med., Minoufyia Univ.<br>Bowers, C.Y., Chally, C., Gual, C., et al. Biochem. Biophys. R., 39, 353 (1970)<br>Bowlby, G. M. S. (1957): Some preliminary investigations into the effect of light on broilers. Worlds Poult. Sci., 13:214-226.<br>Cave, N. A. (1990): Effects of feeding level during pullet-layer transition and pretransition lighting on performance of broiler breeders. Poult. Sci., 69:1141-1146.   |

|               |  |
|---------------|--|
| Title         | Some Biochemical Changes Followed Experimental Gastric Ulceration  |
| Author        | <b><u>El-Far, A. H.</u></b> and Gindi, R.R.<br><br>El-Far, A. H. was with Department of Biochemistry, Faculty of Veterinary Medicine, Damanhour Univ., Egypt. <a href="mailto:ali.elfar@damanhour.edu.eg">ali.elfar@damanhour.edu.eg</a><br>Gindi, R.R. was with Clinicopathological Department, Faculty of Medicine, Benha University, Egypt.   |
| Abstract      | Gastric ulceration is a discontinuity in gastric mucosa, usually occurs due to imbalance between the gastric mucosal protective factors, that is called gastric mucosal barrier, and the aggressive factors, to which the mucosa is exposed. This study was carried out on sixty male Sprague-Dowely rats (12- 16 weeks old) allocated into two groups. The first control group and the second Gastric lesion group which induced by oral administration of a single daily dose of aspirin at a dose of 300 mg/kg body weight for 7 consecutive-days (6% aspirin solution will be prepared and each rat will be given 5 ml of that solution/kg body weight). Blood is collected 1, 2 and 3 weeks after induction of gastric ulceration. Significant increase in serum copper, nitric oxide, and prostaglandin E2 all over the period of experiment. Significant decrease in erythrocyte superoxide dismutase (t-SOD) activities, serum (calcium, phosphorus, glucose and insulin) levels. Non-significant changes in serum sodium and potassium levels are obtained. |
| Keywords:     | Aspirin, Gastric Ulcer, Prostaglandin E2, Superoxide dismutase   |
| Published In: | World Academy of Science, Engineering and Technology 70 2012   |
| References    | N. D. Yeomans and J. Naesdal “Systematic review: ulcer definition in NSAID ulcer prevention trials”. <i>Aliment Pharmacol Ther</i> , 27(6):465- 472. 2008.<br>M. Bhattacharjee, S. Bhattacharjee, A. Gupta and R. K. Banerjee, “Critical role of an endogenous gastric peroxidase in controlling oxidative damage in H. pylori-mediated and non-mediated gastric ulcer”. <i>Free Radical Biol Med.</i> ;3:731–743. 2002.<br>D. Bandyopadhyay, K. Biswas, M. Bhattacharyya, R. J. Reiter and R. K. Banerjee, “Gastric toxicity and mucosal ulceration induced by oxygengenderived reactive species, protection by melatonin”. <i>Curr Mol Med.</i> ;1:501–513. 2001.  |