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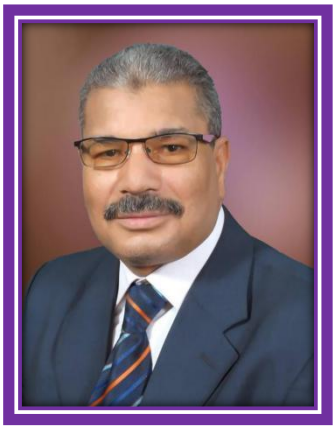

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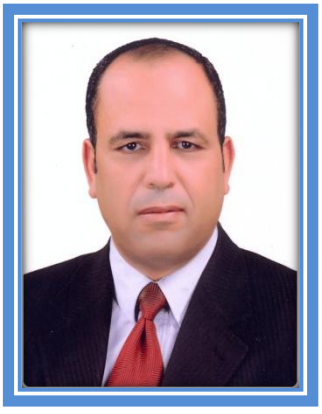

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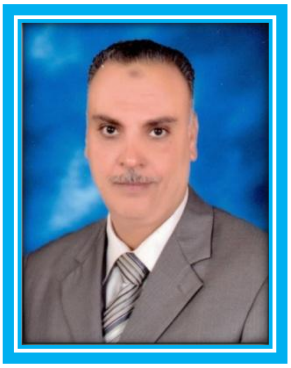

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About the conference:

The 5thInternational Conference of Youth Researchers on Agricultural and Veterinary Sciences (ICYRAVS 2019) is an opportunity to discuss and exchange cutting-edge knowledge, recent developments and research results in agricultural and veterinary sciences with researchers and scientists from different countries around the world.

A key aim of ICYRAVS is to encourage the research activities of students and young researchers at the early stage of their careers in the area of agricultural and veterinary sciences. and to exchange the experience between the different researchers. This conference will bring us to realize scientific cooperation in these fields in order to serve the community and achieve sustainable development.

The conference focused on the different branches of the Veterinary and Agricultural sciences. The conference scopes for the agricultural sciences include; Agricultural Economics, Agronomy , Animal and Poultry Production, Food and Dairy Technology Sciences, Genetics and Biotechnology, Horticulture Sciences, Plant Pathology, Plant Protection, Rural Sociology and Agricultural Extension, Soils and Water Sciences.

For the Veterinary branch, the conference scopes include; Veterinary anatomy and Histology, Animal & poultry Hygiene and environment, Animal Behavior and Management, Animal Medicine, Veterinary Biochemistry, Fish Diseases, Food Hygiene, Forensic Medicine and Toxicology, Veterinary Microbiology, Nutrition and Clinical Nutrition, Veterinary Parasitology, Pathology and Clinical Pathology, Veterinary Pharmacology, Veterinary Physiology, Poultry Diseases, Surgery, Anesthesiology and Radiotherapy, Theriogenology, and Zoonosis.

Conference Agenda

Day one: March 18, 20119

Conference Hall: (1)

9: 00 am to 10:00 am	**Registration**
10.00 am to 11: 00 am	**Opening Ceremony.** **Welcome Speech from:** **Prof. Dr. Moamen Al Wasfy, Conference secretary** **Prof. Dr. Essam El-Deen Abdellatief, Conference chairman** **Prof. Dr. Mahmoud Khodari, vice president for postgraduate and research affairs.** **Prof. Dr. Abbas Mansour, President of South valley university**
11.00 am to 11:30	**Coffee break**
11:30 am to 12:00 pm	**Lecture: Activate the environmental knowledge system and build a strategy to address environmental risks in Qena Governorate.** **Prof. Dr. Ahmed Sarhan;** *Faculty of Agriculture, South Valley university, Qena, Egypt.*
12:00 pm to 3:15	**Oral session 1**
Session chairs	**Prof. Dr. Mohamed Wael Abd Al Azeem Prof. Dr. Adel El Sayed Ahmed**
12:00 pm to 12:15 pm	**Presentation:** *Uterine Torsion as a Major Cause of Maternal Dystocia in Buffaloes* **Mr. Eslam Elmalek** , *Faculty of veterinary medicine, South Valley university.*
12:20 pm to 12:35 pm	**Presentation:** *Detection of Listeria monocytogenes Isolated from Meat Products in Qena Province, Egypt* **Ms. Hala Mahmoud** , *Faculty of veterinary medicine, South Valley university.*
12:40 pm to 12:55 pm	**Presentation:** *Detection of E. coli in chicken by Polymerase Chain Reaction (PCR).* **Mr. Mohamed Salah Ahmed**, *Faculty of veterinary medicine, Assiut university.*
1:00 pm to 1:15 pm	**Presentation:** *Enterotoxin Genes in Coagulase-positive and Coagulase-negative Staphylococci Isolated from Chicken Production Cycle.* **Dr. Shimaa El-Nagar.**, *Faculty of veterinary medicine, South Valley university.*
1:20 pm 1:35 pm	**Presentation:** *Genetic characterization of infectious bursal disease virus in Luxor Governorate.* **Dr. Enas Mohamed**, *Faculty of veterinary medicine, South Valley university.*
1:40 pm to 1:55 pm	**Presentation:** *Evaluation of Aloe Vera Yogurt Consumption on Some Immunological and Hematological Parameters of Male Healthy Albino Rats* **Ms. Al Zhraa Hefny.**, *Faculty of Veterinary Medicine, South Valley university.*
2:00 pm to 2:15 pm	**Presentation:** *Assessment of Some Liver and Kidney Function Parameters in Aloe Vera Yoghurt fed Rats* **Ms. Enas Mamdouh.**, *Faculty of veterinary medicine, South Valley university.*
2:20 pm to 2:35 pm	**Presentation:** *Cholemic nephropathy in chronic liver diseases.* **Ms. Aya Abbas.**, *Faculty of veterinary medicine, South Valley university.*
2:40 pm to 2:55 pm	**Presentation:** *some epidemiological studies on the presence of Toxoplasma gondii in milk and aborted women in Qena province* **Mrs. Hassnaa Mohamed.**, *Faculty of veterinary medicine, South Valley university.*
3:00 pm to 3:15 pm	**Presentation:** *Molecular study on some virulence factors of S. aureus isolated from ice cream* **Ms. Hala Samir.**, *Faculty of veterinary medicine, South Valley university.*
3:15 pm	**Lunch**

Conference Hall: (2)

12:00 pm to 3:15 pm	**Oral session 1**
Session chairs	**Prof. Dr. Mohammed Sayed Hassan Prof. Dr. Ayman Mohammed Rashwan**
12:00 pm to 12:15 pm	**Presentation:** *Inducing phenotypic variation on Chrysanthemum morifolium plants using sodium azide.* **Ms. Hanaa Abdel Aziz** , *Faculty of Agriculture, South Valley university*.
12:20 pm to 12:35 pm	**Presentation:** *Impact of Potassium Humate and Potassium Silicate in Alleviation of Salt Stress in Tomato Plants* **Mr. Mohamed Elsadek**, *Faculty of Agriculture, South Valley university*.
12:40 pm to 12:55 pm	**Presentation:** *Effect of sodium chloride on the growth characteristics of micropropagated banana (Musa spp.)* **Mr. Ahmed Refaiy**, *Faculty of Agriculture, South Valley university*.
1:00 pm to 1:15 pm	**Presentation:** *Studies on potato plants as influenced by stress condition via tissue culture techniques*. **Ms. Remonda K. Labeb** , *Horticulture institute, ARC, Dokii, Giza. Egypt*.
1:20 pm 1:35 pm	**Presentation:** *Forage and Seed Yield Variation of Alfalfa Cultivars in Response to Planting Date*. **Mr. Wesam Abd El-Rady** , *Faculty of Agriculture, South Valley university*.
1:40 pm to 1:55 pm	**Presentation:** *Effect of NK fertilizers and humic acid on yield attributes of fodder beet under sandy soil conditions.* **Mr. Ahmed Mahmoud**, *Faculty of Agriculture, South Valley university*.
2:00 pm to 2:15 pm	**Presentation:** *Effect of sowing dates and biofertilization on growth characters of barley in newly cultivated soil* **Mr. Hamdy Mohamed**, *Faculty of Agriculture, South Valley university*.
2:20 pm to 2:35 pm	**Presentation:** *Relationship between treated wastewater irrigation scheduling and diversity soil bacterial communities.* **Mr. Shadi Sheref**, *Faculty of Agriculture, South Valley university*.
2:40 pm to 2:55 pm	**Presentation:** *Effect of weed control treatments on weeds and improved sugarcane productivity* **Mr. Abed Al-Raheem Gad**, *weed research laboratory, ARC, Dokii, Giza, Egypt*.
3:00 pm to 3:15 pm	**Presentation:** *Combining ability for some traits in bread wheat under different sowing dates* **Mr. Ibraheim Ali**, *Faculty of Agriculture, South Valley university*.
3:15 pm	**Lunch**

Day Two: March 19, 2019

Conference Hall: (1)

12:00 pm to 3:15 pm	**Oral session 1**
Session chairs	**Prof. Dr. Karem Mohammed Mahana** **Prof. Dr. Tharwat Mohamed Al Ameen**
10:00 am to 10:30 am	**Lecture: Molecular mechanisms of leukemogenesis** **Dr. Ebaid Shanab;** *Faculty of veterinary medicine, South Valley university, Qena, Egypt*.
10:35 am to 10:50 am	**Presentation:** *Analytical study of the level of Importance and knowledge of Concepts and Issues of International Agriculture among Students of the Faculty of Agriculture, South Valley University* **Prof. Dr. Ahmed Sarhan**, *Faculty of Agriculture, South Valley university*.
10:55 am to 11:10 am	**Presentation**: *Evaluation of certain pesticides and their alternatives against the black vine thrips, Retithripssyriacus (Mayet) (Thysanoptera: Thripidae) infesting grapevine* **Dr. Refat Allam**, *Faculty of Agriculture, South Valley university*.
11:15 am to 11:30 am	**Presentation:** *Production Of liquid Chocolate (Datella) From Saidy Date Pits.* **Dr. Naglaa Abdel Karim**, *Faculty of Agriculture, South Valley university*.
11:35 am to 11:50 am	**Presentation:** *Effect of some plant extracts on greater wax moth Galleria mellonella L.* **Mr. Mostafa Seddik**, *plant protection institute, ARC, Dokii, Giza, Egypt*.
11:55 am to 12:10 pm	**Presentation:** *Isolation and Identification of some Root Rot and Vascular wilt fungi infected Pepper under Qena and Sohag Conditions.* **Ms. Amera Loutfy**, *Faculty of Agriculture, South Valley university*.
12:15 pm to 12:30 pm	**Presentation:** *Effect of infestation with Pink sugarcane mealybug Saccharicoccus saccharion sugarcane chemical properties.* **Ms. Marwa Sadan**, *plant protection institute, ARC, Dokii, Giza, Egypt*.
12:35 pm to 12:50 pm	**Presentation**: *Isolation and identification of some root rot fungus infected common bean under Qena and Sohag condition.* **Ms. El Shimaa Galal**, *Faculty of Agriculture, South Valley university*.
12:55 pm to 1:10 pm	**Presentation:** *Efficacy of Some Pesticide Alternatives on the Desert Locust Schistocerca gregaria (Forskal).* **Mr. Osama Moustafa** , P*lant protection institute, ARC, Dokii, Giza, Egypt*.
1:15 pm to 1:30 pm	**Presentation:** *Controlling the Fusarium wilt of tomato by using bioagents under Greenhouse and Field Conditions.* **Mrs. Noha Ebrahim**, *Faculty of Agriculture, South Valley university*.
1:35 am to 1:50 pm	**Presentation:** *Characteristics of Isolated Starch Granules of Two Sorghum Varieties.* **Mr. Ahmed Rashwan**, *Faculty of Agriculture, South Valley university*.
1:55 pm to 2:10 pm	**Presentation:** *Effectiveness of the nanomatriales zinc oxide(ZnO), titanium dioxide(TiO2) and Cadmium sulphate (CdS) on Subterranean termites, Psammotermeshypostoma (Desneux) under field conditions* **Mr. Mohamed Hammad**, *Faculty of Agriculture, South Valley university*.
2:15 am to 2:30 pm	**Presentation:** *Number, duration and annual generation of the peach fruit fly, Bactrocerazonata (Saunders) and its Predicting peaks under the field condition at Qena region, Egypt.* **Mr. Mahmoud Abbas**, *Faculty of Agriculture, South Valley university*.
2:30 pm	**Lunch**

Conference Hall: (2)

12:00 pm to 3:15 pm	**Oral session 1**
Session chairs	**Prof. Dr. Ashraf Ahmed Elghoneimy** **Prof. Dr. Zeinhom Shikhoun Hassan**
10:35 am to 10:50 am	**Presentation:** *Water salinity stress on ruminants and monogastric animals* **Mr. Mahmoud Abd Elsattar**, *Faculty of Agriculture, South Valley university*.
10:55 am to 11:10 am	**Presentation:** *Nanoparticles of zinc oxide in laying hens Nutrition* **Mr. Mohammed Fawaz** , *Faculty of Agriculture, South Valley university*.
11:15 am to 11:30 am	**Presentation:** *Detection of Toxigenic Staphylococcus Aureus in Locally Slaughtered Chicken and Beef in Luxor City by Using of Multiplex PCR* **Dr. Zeinab Ahmed**, *Faculty of veterinary medicine, South Valley university*.
11:35 am to 11:50 am	**Presentation:** *Salinomycin toxicity in poultry – Shielding effect of antioxidant* **Dr. Noha Abdelmageed** , *Faculty of Veterinary medicine*, Sohag university.
11:55 am to 12:10 pm	**Presentation:** *The effect of dietary doum supplementation on productive and reproductive performance of male rabbits in upper Egypt.* **Ms. Hanan Badry** , *Faculty of Agriculture, South Valley university*.
12:15 pm to 12:30 pm	**Presentation:** *Effect of dietary supplementation of silver nanoparticle, jojoba oil and their combination on productive performance of broilers* **Ms. Mona Mohamed Abdelsalam**, *Faculty of Agriculture, South Valley university*.
12:35 pm to 12:50 pm	**Presentation:** *Effects of dietary compound probiotics on the growth performance and innate immune response of Nile tilapia.* **Mr. Mahmoud Ahmed Ibrahim**, *Faculty of Agriculture, South Valley university*.
12:55 pm to 1:10 pm	**Presentation:** *Biochemical studies about the effect of Cu (+) –Nicotinate complex in Aflatoxicosed rats.* **Mrs. Laila Taha** , *Faculty of veterinary medicine, South Valley university*.
1:15 pm to 1:30 pm	**Presentation:** *Light microscopy of alarm precursor cells in the skin of catfish (Clarias gariepinus)* **Mr. Hussin Elkhateeb.**, *Faculty of veterinary medicine, South Valley university*.
1:35 am to 1:50 pm	**Presentation:** *Does Consuming Aloe Vera Yoghurt Cause Male Infertility? A 14-day in vivo study* **Ms. Eman Mahroos**, *Faculty of Veterinary medicine, South Valley university*.
1:55 pm to 2:10 pm	**Presentation:** *Using Aloe Vera extract in the production of some dairy products* **Mr. Mahmoud Ali**, *Faculty of Environmental Agricultural Sciences , Arish University, El Arish, Egypt.*
2:15 am to 2:30 pm	**Presentation:** *Modulation of Glucose Homeostasis in Rats Treated with Bacterial Lipopolysaccharide: Role of L-Arginine Counter-Strategy***.** **Ms. Azza Ahmed**, *Faculty of veterinary medicine, South Valley university*.
2:30 pm	**Lunch**

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Keynote Lectures

أ.د/ أحمد مصطفى محمد سرحان

أستاذ الإرشاد الزراعى والمجتمع الريفى

كلية الزراعة - جامعة جنوب الوادى- قنا- مصر.

تفعيل النظام المعرفى البيئى وبناء استراتيجية لمواجهة المخاطر البيئية بمحافظة قنا

تدور هذه المحاضرة حول العناصر التالية .

1- **إعداد دليل الوعى البيئى الريفى:** يتضمن مخاطر البيئة المنزلية ، ومخاطر البيئة المزرعية ، ومخاطر البيئة الطبيعية ، ومخاطر البيئة الاجتماعية. ويضم الدليل اطارا نظريا عن كل هذه البيئات الريفية.

2- **خريطة إلكترونية للمخاطر البيئية:** تضم مختلف المخاطر الريفية بكافة قرى المحافظة ويتم اعدادها باستخدام تقنيات GIS لتحليل المخاطر البيئية بالقطاع الريفى للمحافظة بالكامل.

3- **بناء قدرات الجهات العاملة فى التوعية البيئية:** من حلال عقد بروتوكولات تعاون مع جهاز شئون البيئة ومديريات الزراعة والتربية والتعليم والجمعيات والمؤسسات الاهلية.

4- **إدماج الشباب الجامعى فى القضايا البيئية:** من خلال مساهمة الشباب الجامعى فى جمع بيانات الخريطة الالكترونية للمخاطر البيئية ، وتنفيذ أنشطة (تثقيف الأقران) وإعداد ميسرين بيئيين من الطلاب الجامعيين فى مختلف البيئات المنزلية والمزرعية والطبيعية والاجتماعية.

5- **بناء آلية ذاتية للحماية البيئية الريفية:** من خلال اختيار عدد من القرى لتجريب خطوات بناء الآلية الذاتية بتدريب ميسرين محليين ووضع خطة للاستهداف الكامل لكل البيئات / ولكل الفئات بالقرى علاوة على أنشطة مسوح المخاطر البيئية.

6- **تفعيل النظام المعرفى البيئى وبناء استراتيجية لمواجهة المخاطر البيئية:** من خلال العمل مع كافة الجهات العاملة فى مجال التوعية ومواجهة المخاطر البيئية الريفية بالمحافظة ، ودراسة كاملة لمحددات السعة المعرفية البيئية لتلك الجهات والتحليل البيئى (SOWT) لها، بهدف بناء استراتيجية لمواجهة المخاطر البيئية.

7- **انشاء مركز للتوعية البيئية الريفية :** لضمان استمرارية الجهود يتم إنشاء مركز للتوعية البيئية الريفية بالجامعة لمتابعة تنفيذ الاستراتيجية وتدريب الكوادر ، وانتاج مواد التوعية البيئية.

Dr. Obeid Shanab

Lecturer of biochemistry and tumor biochemistry

Faculty of Veterinary medicine, South Valley University ,

Qena, Egypt

Molecular mechanisms of leukemogenesis

Adult T-cell leukemia (ATL) is an oncogenic disease derived from the HTLV-1-infected T cells and there is no effective therapy known yet. previously reported that down-regulation of N-myc downstream-regulated gene-2 (NDRG2) expression by DNA Methylation and genetic deletion presents one of the most common alterations in adult T-cell leukemia (ATL) and other various kinds of cancers. A stress-induced NDRG2 suppresses important signaling pathways (PI3K and NF-κB) through the de-phosphorylation of PTEN and NIK as a PP2A recruiter. We identified protein arginine methyltransferase 5 (PRMT5) as a NDRG2/PP2A binding partner. A NDRG2/PP2A complex down-regulated arginine methyltransferase activity of PRMT5 through de-phosphorylation of the serine and threonine residues and changing its co-localization to the nucleus of ATL cell lines increasing the histone arginine methylation; however, PRMT5 was highly phosphorylated and localized in cytoplasm in NDRG2-deficient ATL.

The expression of N-myc downstream-regulated gene 2 (NDRG2) was significantly downregulated in ATL through DNA methylation and genetic modifications. Its downregulation associated with tumor growth, progression and metastasis as the deletion of NDRG2 was reported in a wide variety of cancers, including pancreatic cancers, oral cancers and gastric cancers. NDRG2, is a stress-responsive gene that have a role in suppressing the phosphorylation of many important signaling molecules in several signaling pathways through the recruitment of the proteinphosphatase PP2A, which results in de- phosphorylation and the maintenance of cellular homeostasis after the over-activation of stress response factors. NDRG2 is a novel PTEN-binding protein that activates PTEN phosphatase activity by recruiting PP2A, which dephosphorylates PTEN at Ser380, Thr382 and Thr383 (STT) in its C-terminal domain (C-term). In most ATL cells and oral cancers, the expression of wild-type PTEN is sustained with low phosphatase activity by maintaining the highly phosphorylated status of the PTEN C-term (STT), resulting in the constitutive activation of the PI3K/AKT signaling pathway. So cytoplasmic PRMT5 is considered as a novel target gene in the ATL, as targeting of PRMT5 with a drugs that regulates its phosphorylation status maybe used as a novel therapeutic pattern in ATL leukemia.

Oral Presentations

Characteristics of isolated Starch Granules of two Sorghum Varieties

M.A. Sorour [1], A.E. Mehanni [1], E.M. Taha [2], and A.K. Rashwan [2]*

[1]*Food Science and Nutrition Dept. Faculty of Agriculture, Sohag University, Sohag, Egypt.*

[2] *Food and Dairy Sciences Dept. Faculty of Agriculture, South Valley University, Qena, Egypt.*

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Abstract:

Sorghum, like other cereals, is rich in starch, which makes up about 60– 80% of normal kernels which had an excellent potential for global industrial applications. In this study, starch had been isolated from tow sorghum varieties (low tannin Giza 15 and high tannin Assiut 14) using different extraction procedures (boiling in water and in alkaline media and soaking in alkaline media). Starch yield, gel consistencies, degree of syneresis, gelatinization temperature range, shape and size of starch granules, and starch color had been assayed for the isolated starch. The results revealed that Giza 15 had higher starch yield for all extraction procedure, gels made with (Giza 15) was thinnest than that made from (Assiut 14), the degree of syneresis increased as the concentration of starch gel decreased, the results showed also that neither significant difference of gelatinization temperature between white and pigmented sorghum starches nor between the extraction procedure for the pigmented starch was noted. Giza 15 starch had the highest *L** value (91.3), however Assiut 14 variety gave a little darker starch. The appearance of starches isolated from pigmented sorghum variety was comparable to that of white variety. The starch granules are mostly spherical and polygonal, with indentations and pores on the surface radial, tube-like channels of granules penetrate from the external surface into a cavity at the hilum, starch granule size of Giza 15 exhibited not significantly difference for larger size compared to that of Assiut 14 extracted using different extraction procedures. Results concluded that the starch isolated from pigmented sorghum grains using the alkaline procedure was comparable to white starches; thereby it could be replace it in the food industry fields.

Keywords: *Characteristics, Isolated, Starch, Granules, Sorghum and Varieties.*

Water salinity stress on ruminants and monogastric animals

M.M. Abdelsattar[1], M. N. M. Abd El-Ati[2], A. M. A. Hussein[2] and A. M. Saleem[1]

[1] *Animal Production Department, Faculty of Agriculture, South Valley University, Qena, Egypt.*

[2] *Animal Production Department, Faculty of Agriculture, Assiut University, Assiut, Egypt.*

Abstract:

Limited freshwater resources and climatic change are major challenge face animal production industry, especially in the arid and semiarid regions. Climate changes are reflected in global warming and rainfall reduction, which in turn may increase the salinity of both soil and water. Within the reclamation strategy, groundwater will be the main source of used water in cultivated desert lands in Egypt. However, the groundwater has high salinity and the cost of desalination is expensive. Salinity or total dissolved solids are used to determine the suitability and palatability of particular water resource for livestock. This review gives an overview of the impact of using saline water as an alternative source of fresh water to avoid water scarcity effect on the performance, blood, carcass traits, and meat quality of farm animals. The ability of animals to tolerate saline water depends on the animal species, salinity level and the type of salt minerals in water. Some studies indicated that the animals' performance improved in low levels of salinity, but the performance decreased when the salinity levels was increased. In conclusion, this study implies that the water quality can influence the production performance, blood constituents, carcass traits, meat quality and organs' histopathological pictures of livestock.

Keywords: *Water quality, ground water, climatic change, total dissolved solids ,livestock.*

Impact of Potassium Humate and Potassium Silicate in Alleviation of Salt Stress in Tomato Plants

M.A.Y. Elsadek[1]*, Abdel-Haleem. A. H. El-Shaieny[1], M.H. Hosseny[2]and A.M. Eldamarany[2]

[1]*Horticulture Department, Faculty of Agriculture, South Valley University, Qena, Egypt.*

[2]*Horticulture Department, Faculty of Agriculture, Sohag University, Sohag, Egypt.*

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Abstract:

Saline water is constraining component for growth and productivity of tomato plants. Whilst, the continued increase in food demands and the parallel decrease in freshwater resources focus the attention on the possibility of using saline water for irrigation purposes. This study carried out in Experimental Farm, Faculty of Agriculture, South Valley University, Qena Governorate, Egypt, during the two seasons of 2017-2018 to evaluate the effect of potassium humate and potassium silicate either alone or combinations on growth and yield of tomato plants under salinity stress. Watering tomato plants with saline water i.e. 0.3, 5.5 and 9.2 dS.cm^{-1} significantly decreased plant height by 34.2 %, stem diameter by 8.9 %, fruit volume by 49.17 % and total fruits yield by 71.5 %. While, chlorophyll content of leaves significantly increased in response to salinity levels in both seasons. On the other hand, dipping seedlings root and foliar spraying of biostimulants did not have a potent effect on vegetative growth. also, results indicated that plants treated with potassium humate as dipping root (300 mg L^{-1}) and foliar spray with mixture of potassium humate and potassium silicate (both at rate 250 mg L^{-1}) during growing season, increased total fruits yield under salt stress.

Keywords— *saline water, dipping, spray, humate, silicate, yield.*

Analytical study of the level of Importance and knowledge of Concepts and Issues of International Agriculture among Students of the Faculty of Agriculture, South Valley University

A.M.M. Sarhan

Economic & Agricultural Extension Department, Faculty of Agriculture, South Valley University, Qena, Egypt.

Abstract

The main objective of this study was to identify the level of importance and knowledge of the students of the Faculty of Agriculture at South Valley University in field of the concepts and issues of international agriculture. This study was conducted at the Faculty of Agriculture, South Valley University, Qena Governorate. A random sample of students (100) of the total number of students in the fourth year (260) student, ratio (38%). The data of the study were collected through the questionnaire by personal interview.

The data collection tool was based on the study of importance and knowledge in the field of international agriculture from the perspective of the fourth-year students. The data were collected during the month of January 2019. The frequencies, percentages, arithmetic mean, standard deviation and relative weight were used as tools for statistical analysis and conclusions.

The main results of the study were summarized as follows: The general average of the importance of international agriculture was of high importance. The general average of the level of knowledge of the subjects of international agricultural fields was average. The results of the study showed that the priorities of knowledge needs calculated using the Porsche model were Including geographical factors, sustainable farming practices, market and export factors, and information and communication technology, respectively.

***Keywords**: concepts, knowledge, information, communication technology.*

Uterine Torsion as a Major Cause of Maternal Dystocia in Buffaloes

Eslam F. F. Elmalek[1*], Ahmed S. A. Hassaneen[1], Nasra A.M. Yousef[1], Ahmed. E. Ahmed[1,2]

[1]*Department of Theriogenology, Obstetrics, and Artificial Insemination, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt.*

[2]*Biology Department, Faculty of Science, King Khalid University, 61413 Abha, Saudi Arabia.*

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Abstract:

Buffalo is an important farm animal species for its high economic value as a source for milk and meat production with an estimated number of 5.4 million in 2011.Most of Egyptians prefer buffalo milk because of its white color and high fat contents (6.5-8.0 %). However, buffaloes have low reproductive efficiency and limited productivity due to different disorders including delayed the onset of reproductive maturity, long calving interval and delayed postpartum ovarian resumption. Uterine torsion is one of the major disorders that affect buffaloes during late pregnancy. Uterine torsion is responsible for about 53-83% of maternal dystocia in buffaloes. The aim of this review is to fully discuss the uterine torsion as a major cause of maternal dystocia in buffaloes with a special focus on its causes, and the most recent methods for its diagnosis and treatment. Uterine torsion is defined as the twisting of the uterus around its longitudinal axis either clock-wise (to the right) or anti-clockwise (to the left). Many fetal and maternal associated factors are related to the occurrence of uterine torsion in buffaloes. As a major cause of maternal dystocia in buffaloes, uterine torsion may be complicated with death of both the fetus and the dam if not diagnosed and treated early and appropriately. Therefore, uterine torsion results in high economic losses due to death of the fetus and/or the dam which in turn impair the dairy production. The most commonly used techniques for treatment of uterine torsion are rolling of the dam and caesarean section with variable success rates. Early interference using the appropriate treatment improves the prognosis of uterine torsion for the vitality of both the fetus and the dam.

Keywords: *Bubalus bubalis, Calving, Maternal dystocia, Ruminant fertility.*

Effect of some plant extracts on greater wax moth Galleria mellonella L.

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Abstract:

The present study was carried out to evaluate the biochemical effects of four plants extracts (Datura, Sakran, camphor and Dafla) on the late instar larvae of the greater wax moth Galleria mellonella. L. The results showed that treatment of datura4% gave the maximum total mortality percentage (73.33%), while the minimum total mortality percentage was (13.33%) which recorded by dafla 4%. Biological parameters were studied under laboratory conditions, the life cycle decrease by increasing plant extract concentrations. The life cycle could be arranged in ascending order as follow: 58.33, 56.67, 62.67 and 69.00 day for the larvae treated with Datura 4%, Sakran 4%, camphor, and Dafla 4%, respectively.

Key words: *Galleria mellonella, Plant extracts, Biological parameters, Mortality percentage.*

Nanoparticles of zinc oxide in laying hens Nutrition

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Abstract

Nanotechnology has the potential to revolutionize in poultry industry with new tools for the molecular treatment of diseases and enhancing the ability of animal to absorb nutrients and therefore improving nutrient digestibility and productive performance of poultry. The essential trace elements play important roles such as nutrients metabolism, antioxidant, component of numerous metalloenzymes and protein. Numerous studies have already confirmed the effects of zinc sources at lower and higher doses on laying hens performance. Most of these studies showed slight positive effects, however significant results were rare. Since there are almost unlimited possibilities concerning dosage and sources of zinc there is still more research needed. Using zinc as nanoparticles size can be used at lower doses and can provide better result than the conventional zinc sources. Zinc oxide nanoparticles can act as antibacterial agent, modulates the immunity and production of laying hens. Using of zinc oxide nanoparticles in laying hens nutrition as nanoparticle size may help and improve the egg production sector.Nevertheless, there is still further research under more standardized conditions needed to evaluate the right dosage as well as the exact mechanism of actions of zinc oxide nanoparticles. Therefore, the purpose of this study is to give an overview on the potential of nanoparticles of zinc oxide as feed additives in laying hen diets, in order to evaluate the right dosage and observe their influence on feed intake, ammonia emissions, digestibility, egg production, and egg quality.

Keywords: *nanoparticles, laying hens, egg quality, egg production*

Efficacy of Some Pesticide Alternatives on the Desert Locust *Schistocerca gregaria* (Forskal)

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ABSTRACT

Efficacy of chlorantraniliprole (Coragen®), spinosad (Tracer®) and fipronil (Coatch®) was verified under laboratory conditions against the 5th nymphal instars and adult stages of the Desert Locust *Schistocerca gregaria* (Forskal), using various concentrations of chlorantraniliprole, spinosad and fipronil by leaf dipping technique. Fipronil showed the highest efficacy on the hoppers and adults, followed by spinosad while chlorantraniliprole caused the lowest effect. Effect of LC_{30} concentrations of these insecticides on the life span and fledging rate of 5th instar hoppers was tested. Hopper stock an average of 11.6, 15.6 and 12.6 days to fledge in the treatments of chlorantraniliprole, spinosad and fipronil respectively compared to 8.8 days for untreated hoppers which are significant differences. Fledging rates of 5th nymphal instars were 42.6%, 75% and 25% for the treatments of chlorantraniliprole, spinosad and fipronil respectively that are significantly different from control hoppers (100% fledged successfully). Field tests, executed in southeast Egypt, showed strong efficacy for fipronil, spinosad and chlorantraniliprole against the hoppers and adults of *S. gregaria* within one day of field application.

***Key words**: Insects, Schistocerca gregaria, insecticide alternatives, fledging, field conditions.*

Detection of *Listeria monocytogenes* isolated from Meat Products in Qena Province, Egypt

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Abstract

Listeriosis is a widely distributed disease which caused by *Listeria monocytogenes*. The disease can be serious and fatal to human and animals. The objectives of this study were to detect, isolate and identify *Listeria monocytogenes* from different meat products marketed in Qena province. A total of 120 random samples represented by 6 kinds of meat products(20 samples for each) were collected from different supermarkets in Qena province, Egypt. Samples included sausage, luncheon, kofta, beef burger, pasterma, and minced meat. *Listeria* spp. were isolated according to U.S.D.A. method and *L. monocytogenes* identified by biochemical and serological tests. The results showed that out of total 120 samples, 42 (35%) were found to be contaminated with *Listeria* spp. However, the percentage of *L. monocytogenes* was 13.3 %. The results presented in this study reported the occurrence and distribution of *L. monocytogenes* and other *Listeria* species in different meat products purchased from shops in Qena province and the hygienic measures should be applied during processing, storage and distribution of meat products.

Forage and Seed Yield Variation of Alfalfa Cultivars in Response to Planting Date

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Abstract

The current work was carried out during 2014/15 and 2015/16 seasons at the Experimental Farm of Agriculture Faculty, South Valley University, Qena Governorate, Egypt to study the direct and indirect effects of yield attributes on forage and seed yields of alfalfa. Six alfalfa genotypes from different Egyptian populations (Aswan, Balady, El-Dakhla, Ismalia-1 cultivar, Nitrogen fixing and Siwa population) beside one variety from USA (Genan) were used in this study. The experiments were laid out in randomized complete block design using split plot arrangement with three replications. Three sowing dates of 20th October (D1), 20th November (D2) and 20th December (D3) were allocated in the main plot while the seven alfalfa genotypes were arranged in the sub plots. Three cuts were taken from each sowing date at 80, 125 and 165 days after sowing at 80, 45 and 40 day intervals, respectively. After taking three cuts, the plants were left out until flowering and seed production which take place in the first week of April, May and June for studied sowing dates, respectively. The obtained results show that, the Ismalia-1 cultivar exceeded the other tested genotypes for seasonal fresh forage yield trait (6.16 kg m-2) under third planting date (20th December) while, El-Dakhla genotype superior with regard to seasonal dry forage yield (2.00 kg m-2) under the same planting date. Otherwise, Aswan population produced the maximum mean values of Seasonal protein forage yield (0.60 kg m-2) under second planting date (20th November). In addition, Genan cultivar which was introduced from USA gave the maximum seed yield plant (1.20 g) under the first planting date (20th October). Furthermore, the obtained results show that the fresh forage yield had the greatest influence on protein forage yield in each sowing date. Meantime, the results of path analysis show that, number of seeds/pod and number of pods/plant considered the most effective traits in seed yield/plant of alfalfa. Moreover, negative correlation between seed yield/plant and 1000-seed weight was observed. Therefore, selection for improving seed yield/plant may be carried directly through selection for number of seeds/pod and number of pods/plant.

Key words: *Alfalfa, path analysis, sowing dates*

Effect of infestation with Pink sugarcane mealybug *Saccharicoccus sacchari* on sugarcane chemical properties

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Abstract

The present studies were carried out in sugar cane fields infested by the mealybug insect, *Saccharicoccus sacchari* (Hemiptera: Coccidae) at Qena Governorate, Upper Egypt, through two successive growing seasons of (2012-2014). Results indicated that infestation with *S. sacchari* of sugarcane plant reduced gradually and significantly all chemical properties for Brix, sucrose%, purity, pol and sugar recovery than that uninfested plants. The reduction % was significantly between infested stalks and uninfested ones. The results revealed that the reduction % in Brix in the first season were (1.28%), (1.96%) in the virginal and 1st ratoon cane and (2.66%), (1.22%) in the second season. While the reductions in sucrose % in the first and second seasons were (2.57), (3.84), (2.17), (3.96) in the virginal and 1st ratoon cane, respectively. The reductions in purity % in the first season were (0.76), (1.94) in the virginal cane than in the1st ratoon respectively. Whereas, in the second season were (0.99), (1.33) respectively. The reductions % in Pol in the first season were (1.79%), (1.94%) and during the second season were (1.57%), (3.15%) in the virginal cane than in the1st ratoon respectively. Finally, the reductions % in sugar recovery the first season were (5.33%),(3.26%) and (4.60%) , (2.62%) in the second season in the virginal cane than in the1st ratoon respectively.

Controlling the Fusarium wilt of tomato by using bioagents under Greenhouse and Field Conditions

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Abstract

Tomato fusarium wilt is considered as one of the most important diseases of tomato both in field and greenhouse – grown tomatoes worldwide. In presented study was to assess the biocontrol efficacy for controlling fusarium wilt of tomato caused by *Fusarium oxysporum f. sp. lycopersici* in vitro and in vivo. In vitro study the bio agent *Trichoderma harzianum* and *Pseudomonas fluorescence* caused the highest reduction of mycelial growth of *Fusarium oxysporum f. sp. Lycopersici*(65.56 and 59.19 %, respectively), while yeast caused the lowest inhibition of mycelial growth of the pathogen (51.82%). In greenhouse experiments the reduction of disease severity was achieved by *Trichoderma harzianum* and *Pseudomonas fluorescence* (60.03 and 54.57%, respectively) and the smallest reduction was obtained when tomato plants were treated with yeast (40.18%) compared to the infected control. *Trichoderma harzianum, Pseudomonas fluorescence* and yeast increased the yield by 53.44, 44.68 and 42.39, % respectively) compared to the untreated. All treatments of bioagents significantly reduced the fusarium wilt disease in greenhouse and field conditions as well improving the quantity and quality of tomato production under field conditions compared to untreated.

Key words: *Tomato, biological control, wilting of fusarium, Trichoderma harzianum, Pseudomonas fluorescence and yeast.*

Evaluation of Aloe Vera Yogurt Consumption on Some Immunological and Hematological Parameters of Male Healthy Albino Rats

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Abstract

The consumption of yoghurt has now spread throughout the world, spurred by its long history of beneficial health effects. The interest in fermented milk products containing plant extracts has greatly increased over the last few years. *Aloe vera* (AV) is widely used today in the manufacture of food and beverages, pharmaceuticals and cosmetics. However, an immune-modulating effect of AV remains unclear. Accordingly, the implications of AV and/or Yoghurt two weeks oral consumption on some immunological and hematological parameters of male healthy albino rats were investigated including total proteins, globulins, and antioxidant capacity. Feeding yoghurt alone did not alter total proteins or globulins, while AV with or without yoghurt was able to enhance total proteins and globulins compared to control groups. AV and/or yoghurt consumption didn't change the serum antioxidant levels. These findings lead to the conclusion that AV enhances immune function and protection, most likely by increasing total proteins and globulins levels in the blood. This work was supported by Science and Technology Development fund (STDF, Egypt) under grant No. 2505.

Keywords: *Aloe vera, Yoghurt, Protein, immune response.*

Assessment of Some Liver and Kidney Function Parameters in Aloe Vera Yoghurt fed Rats

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Abstract

Aloe vera (AV) is a natural product that is has been known and used for centuries for its health, beauty, medicinal and skin care properties. However, AV gel is rich in polysaccharides, mainly acemannan and contains 75 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids and amino acids. *Aloe vera* is widely used as additive for dairy products. Accordingly, the implications of AV and/or yoghurt mixture two weeks oral administration on liver and kidney function parameters of male albino rats were investigated including Total proteins, AST, ALT, creatinine and urea. Total proteins and globulins are increased significantly in AV Yoghurt fed rats. However, AST, ALT, and urea are markedly increased in AV fed rats. These findings support a conclusion that AV can enhance growth and immunity, but higher levels of AV may have an adverse effect on Liver and kidney. This work was supported by Science and Technology Development fund (STDF, Egypt) under grant No. 2505.

Keywords: *Aloe vera, Yoghurt, Liver, Kidney.*

Effect of sodium chloride on the growth characteristics of micropropagated banana (Musa spp.)

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Abstract

Salinity represents a significant problem for many agricultural crops, affecting growth and productivity. In banana, which represents a vital food crop globally, one of the main constraints for growth and productivity is salt stress. Salinity has adverse effects on the growth of banana. This study aimed to increase the knowledge about the responses of banana to salt stress using tissue culture technique. Different concentrations of sodium chloride (0, 1000, 2000, 3000 ppm) were added to the micropropagated banana (Musa spp.) cultures during elongation stage. Salinity significantly reduced the plantlet height, Fresh weight, number of leaves, leaf formation, leaf length, root formation, and survival rate.

Keywords: *Salinity, tissue culture, banana, survival rate.*

Relationship between treated wastewater irrigation scheduling and diversity soil bacterial communities

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Abstract

Influence of treated wastewater (TWW) Irrigation depends on the efficiency and variety of wastewater treatment methods, Irrigation scheduling (duration and timing) effects on the soil bacterial communities (SBC) and microbial diversity. Treated wastewater may increase or decrease the number of beneficial and harmful soil bacteria. The present study investigated to the abundance, diversity and the relationship of bacterial communities and the presence of potential pathogenic bacteria in TWW in comparison to freshwater (FW)as a control . The results were analyzed using shannon diversity index values (H') to microbial diversity was not significantly different ($P<0.086$) between soils with TWW and FW. Most of beneficial soil bacteria like as nitrogen-fixing bacteria (*Azotobacter sp*.), denitrifying bacteria (Bacillus subtilis), potential pathogens (*Pseudomonas aeruginosa* and *Enterobacter aerogenes*), and fecal indicator bacteria (*E.coli*) were more abundant in TWW than in FW. Irrigation by treated wastewater (TWW) contains dissolved organic matter; salts and microorganisms might alter soil microbial populations, and thus affect soil fertility, relationship between the first and fifth irrigation with TWW on soil bacterial community for tow consecutive season. SBC composition in soil shifted slightly during irrigation seasons by water control (FW) irrigation, it was greatly influenced by TWW irrigation. During the irrigation season, a decrease abundance and waver of pathogens and indicator bacteria groups were observed an increase in the relative abundance beneficial bacteria groups within TWW-irrigated soils.

Keywords*: Microbial diversity, Azotobacter sp, Pseudomonas aeruginosa, Treated wastewater, Diversity index*

The effect of dietary doum supplementation on productive and reproductive performance of male rabbits in upper Egypt

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Abstract

The present experimental work was carried out at the Experimental farm of Poultry Production Department, Faculty of Agriculture South Valley University, Qena. This study was undertaken during the spring season of Qena City in the period from April 2017 to June 2017.The objective of this work was to study the effects of Doum (*Hyphaene thebaica*) supplementation on productive performance and reproductive performance of rabbit bucks in Upper Egypt during spring condition. Thirty two male (16 CAL and 16 NEZ) rabbits 8 month old with average initial body weight of 3.409±0.05 kg were randomly divided into four groups of 4 bucks each/breed (CAL and NEZ). Group 1 served as control fed a basal diet. Groups 2, 3 and 4 fed basal diets supplemented with 0.3g doum /kg diets, 0.6g doum/kg of diets ,and 0.9 g doum/kg of diets for 12 weeks, respectively. During experimental period, the average maximum temperature and relative humidity inside the rabbitry were 34.8±0.24°C, and 80.4±1.05%, respectively and the temperature-humidity index was 28.9.Feed supplemented doum significantly increased bucks live body weight and feed intake compared with control group. Ejaculate volume, mass motility, sperm concentration, total sperm output, total motile sperms, live and normal sperm, total functional sperm fraction and initial fructose were significantly increased, while reaction time and semen pH significantly decreased in rabbit bucks received doum compared to control group. Administration of doum increased ($P < 0.05$) seminal serum total proteins, globulins, alkaline phosphatase, acid phosphatase and lactate dehydrogenase. Conversely, seminal serum aspartate aminotransferase, alanine aminotransferase were significantly decreased compared to the control group. Seminal surm lipid peroxidation as indicated by thiobarbituric acid-reactive substances was significantly decreased while, seminal serum antioxidant enzymes were significantly increased due to doum supplementation. Significant increase was determined in blood surm testosterone level ,estradiol 172α and progesterone,.

In conclusion, feeding doum improved semen quality, antioxidant status and reproductive traits of rabbit bucks. Thus, the doum seem to be essential for productive and reproductive efficiency of rabbit bucks during spring season in upper Egypt.

***Key words**: Doum (Hyphaene thebaica), semen quality, male rabbits*

Cholemic nephropathy in chronic liver diseases

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Abstract

Chronic liver diseases (CLD) result in 1.03 million deaths per year worldwide. A lethal complication in CLD is the development of multi-organ failure, particularly renal failure. Although the mechanisms and the pathogenesis of CLD have been intensively studied, only little is known about its impact on the kidney. To address this question, the liver-kidney axis was investigated during the course of cholestatic liver disease progression. For this purpose, obstructive cholestasis was induced in male 8-10-week old C57BL6/N mice by ligation of the extrahepatic common bile duct (BDL). Blood as well as liver tissue samples were collected time-dependently up to one year post BDL or sham operation. During the acute stage post BDL (days 1-3), bile infarcts were formed in the liver parenchyma. This was accompanied by elevation of transaminase activity in blood. In contrast, no pathological alterations were observed in the kidney at this stage. Long-term BDL (day 21) lead to ductular reaction and periportal fibrosis in the liver. This was accompanied by sharp elevation of the total bile salt and bilirubin concentrations in blood. Histopathological analysis of the kidney revealed focal areas of cystic dilatation of the renal tubules. In addition, concentrations of urea and creatinine were increased in blood. This effect was aggravated at one year post BDL leading to the typical features of end stage chronic kidney disease. This includes, decreased kidney weigh with dark green discoloration, cystic dilatation of all renal tubules, massive accumulation of collagen, as well as sharp elevation of blood urea and creatinine concentrations. In conclusion, chronic cholestasis leads to development of cholemic nephropathy. Further studies are needed to determine the sequence of events leading to cholemic nephropathy and to design therapeutic interventions.

Keywords: *Liver cirrhosis; cholestasis; bile duct ligation; bile cast*

Isolation and Identification of some Root Rot and Vascular wilt fungi infected Pepper under Qena and Sohag Conditions.

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Abstract

Pepper (*Capsicumannuum* L.) is one of the most popular vegetable crops. Egypt is the second largest pepper producer in Africa (FAO 2013). The area cultivated from pepper in Egypt annually about 65.000 acres, The plant to be attacked by several diseases like as damping-off, root rots and wilt caused by *Fusarium* spp, *Rhizoctonia* spp and *Pythium* spp , this work focus on fungi were isolated and identified according to their morphological characteristics from different area in qena and Sohage governorate. Fifteen isolates were (*Fusarium* spp.) and one isolate was (*Macrophomina*. spp). Pathogenicity test carried out and evaluated under greenhouse condition. The fungi were able to attack pepper seeds and caused different degree of damping off, root rot and wilt disease.

Keywords: *Pepper, Root Rot, wilt, Qena, Sohag.*

Isolation and identification of some root rot fungus infected common bean under Qena and Sohag condition

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Abstract

Common bean (*Phaseolusvulgaris* L.) is the most important food legume in worldwide. Bean is the second export crops after the potato in Egypt. Root rot is a soil-borne disease that is caused by several fungal pathogens including *Fusarium*. spp, *Pythium*. spp, , *Rhizoctonia*. spp. and *Macrophomina* phaseolina. The objectives of the present study are isolation and identification of the causal pathogens from rotted and wilted plants. Evaluation of the pathogenicity of these isolated pathogens on dominant cultivated cultivars of common bean in Qena and Sohag under greenhouse and field conditions. Eight isolates of Fusarium. spp and *Macrophomina*. *spp* were isolated from natural infected common bean roots and identified according to morphological characteristics. These funguses infected the common bean (seeds, shots and roots) and diseases symptoms occurred clearly include damping-off (pre, post), root rot and wilt under greenhouse condition in various degree.

Keywords: *Fusarium, Pythium, Rhizoctonia, commonbean, greenhouse.*

Inducing phenotypic variation on *Chrysanthemum morifolium* plants using sodium azide

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ABSTRACT

Chrysanthemum morifolium is one of the most important ornamental plants ranking the 3rd in the global cut flower trade. Genetic variability is a demand for plant improvement which helps in selection strategy, recombination and isolation of superior genotypes. So that, bases of shoot apical cuttings of *C. morifolium* cv. Super Yellow were dipped in 0.0, 0.012 and 0.18% of the sodium azide (SA) for 6 and 12h. Cuttings survivability was immensely hampered and reduced to 38% once treated with 0.18% for 6h. Almost, all mean of investigated traits did not highly varied between the control and treated plants. Nevertheless, their ranges were remarkably varied due to the treatment e.g. plant heights of SA-treated plants were (15-96 cm) whereas, it were (55-71 cm) for the control ones. Also, the range of number of days to bloom (247-266) number of shoots/plant (1-15) and number of flower head (0-48) on the 1st season were highly varied compared with the control plants. Similarly, flower head diameter and fresh and dry weights had noticeably wide ranges. This remarkable disparity of the plant traits was accomplished with high σ^2P and σ^2G compared with the control plants on both seasons**.** High heritability combined with high genetic gain as a percent of mean (GAM) was observed for number of branches, number of flower heads and flower head dry weight. Hence, these metrical traits require simple breeding selection. However, high H coupled with low GAM was recorded number of days to bloom and flower head diameter indicating non-additive gene action. Low H and GAM was notice for flower head fresh weight. The knowledge on H of traits is helpful in deciding the selection procedure to improve the trait given. Nevertheless, SA that caused diversity on plant growth and flowering traits still warrant further examinations.

Keywords: sodium azide, phenotypic, *Chrysanthemum morifolium*

Effect of weed control treatments on weeds and improved sugarcane productivity

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Abstract

The purpose of this study is to investigate the effect of some weed control treatments on yield, yield components, quality of sugarcane and its associated weeds under Upper Egypt conditions. The experiments were laid out in a randomized complete blocks design with four replications. The experiment included eleven treatments which were (1- Stomp 50% EC at the rate 1.75 L/fed pre emergence , 2- Garlone 50% EC at the rate 400 cm^3/fed post at 45 DAP ,3- Garlone 50% EC post emergence two times application at the rate 200cm^2 after 21 days from the first application.4- Staran 50% EC at the rate 400 cm^3/fed after 21 days from planting ,5-Staran 50% EC post emergence two times application at the rate 200 cm^3/fed post emergence at 21 DAP followed by 200 cm^2 after 21 days from the first application ,6- Stomp at the rate 1.75 L/Fed followed by Garlone at 200 cm^3/fed ,7- Stomp at 1.75 L/fed followed by Staran at 200 cm^3/fed ,8-Ready peak 80% WG at 2.75 L/fed. Pre. Emergence and 9-Super tri 60% EC at 250 cm^3/fed post-emergence after 21 days from planting. 10-hand hoeing twice at 25 and 45 days after planting and 11- unweeded check) as the integrated weed control on fresh and dry weight of weeds (g/m^2) and yield of sugarcane .Weed control treatments were decreased significantly fresh and dry weight (g/m^2) of board-leaved, grassy and total weeds (g /m^2) at 75 DAP in both seasons, compared to unwedded check. Hand hoeing twice have the highest reduction percentage in fresh weight of total weeds was 93.4 and 91.67% followed by the combination between stomp at 1.75 L/fed with Garlone at 200 cm^3/fed was 87.35 and 88.53% and with Staran 85.71 and 84.53% at 75 DAP in 2015/2016 and 2016/2017, respectively, compared to unweeded check. Weed control treatments were decreased significantly sugarcane yield attributes traits and cane and top yield (ton/fed.) of sugarcane compared to unwedded check

***Keywords**: Weed control, sugarcane, Garlone, Staran, productivity.*

Effect of dietary supplementation of silver nanoparticle, jojoba oil and their combination on productive performance of broilers

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Abstract:

An experiment was conducted to determine the effects of dietary supplementation of silver nanoparticle, jojoba oil and their combination in broiler chicken diets on growth performance and carcass characteristics. Treatment groups were fed on a control diet, the control diet supplemented with silver nanoparticle (5 ppm/kg), the control diet supplemented with jojoba oil (120 mg/kg) or the control diet supplemented with a combination of silver nanoparticle (5 ppm/kg) and jojoba oil (120 mg/kg).

Supplementation of silver nanoparticle and jojoba oil, separately as well as combined, improved body weight and daily body weight gain at 21 and 42 days of age. However, there were no significant effects of silver nanoparticle and jojoba oil supplementation on carcass criteria and internal organs.

Keywords: *Silver, Nanoparticles, jojoba oil, dietary, broiler.*

Some Epidemiological Studies on the Presence of *Toxoplasma Gondii* in Milk and Aborted Women in Qena Province

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Abstract

Toxoplasmosis is an important worldwide zoonotic disease caused by an obligate intracellular protozoan parasite called *Toxoplasma gondii*, which is responsible for the infection of almost one-third of the world's population. It is the main cause of reproductive failure in human and farm animals resulting in significant socio-economic losses worldwide. Drinking of contaminated raw milk has been suggested as a vehicle for transmission of *T. gondii* to human. So the present study was performed for the detection of *T. gondii* in goat, sheep and cow raw milk samples as well as in pregnant women in Qena, Egypt using enzyme-linked immunosorbentassay (ELISA).A total of 150 raw milk samples were collected randomly from in-house reared animals(ewes, does and cows, 50 for each) from different areas in Qena Province. Beside 100 serum samples were collected from pregnant women with case history of previous abortion presented to Obstetrics and Gynecology Department, Qena General Hospital and a questionnaire was performed during sample collection. All samples were tested for IgG and IgM *T. gondii* antibodies using (ELISA).The serological prevalence of *T. gondii* in examined milk samples were distributed as the following; 40% (20/50) and 6% (3/50) in does and ewes' milk respectively while in cows' milk IgM was recovered from 32 samples (64%).On the other hand IgG and IgM antibodies could be recovered from 26 and 2% of examined women samples respectively. From our study, these results concluded that raw milk was contaminated by *T. gondii* tachyzoites which considered the main source of human toxoplasmosis. Restricted hygienic programs should be applied in the animal farms to decrease milk contamination as well as the introduction of health educational programs should be considered.

Keywords: *Toxoplasma gondii, sheep milk, enzyme-linked immunosorbent assay, goat milk, cow milk.*

Evaluation of certain pesticides and their alternatives against the black vine thrips, *Retithrips syriacus* (Mayet) (Thysanoptera: Thripidae) infesting grapevine.

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Abstract

The black vine thrips, *Retithripssyriacus* Mayet (Thripidae: Thysanoptera)is considered as pest. Adults and nymphs of this pest causes a serious damage to grape vine leaves. The experiments were carried out to evaluate the toxicity of seven pesticides on nymphs and adults of GVT on Flame seedless and Superior commercial vineyard varieties under laboratory and field conditions during 2016/2017 season. Data clearly indicate that the order of efficiency of the tested compounds were the same at both LC_{50} and LC_{90} levels. The tested insecticides could be descendingly arranged as follows: Radient, Pleo, Movento, Nanoparticles Zinc oxide, Marshal, KZ oil and Garlic extract. The corresponding LC_{50} values were 0.1, 0.24, 0.9, 0.92, 1.33, 1.45 and 1.5 ppm, while the LC_{90} values were 0.87, 1.07, 5.48, 10.92, 8.67, 6.42 and 11.26 ppm, respectively. On the other hand, χ^2 values were 5.77, 2.93, 3.95, 3.08, 6.54, 2.87 and 1.51 respectively. Radient had the steepest toxicity line and Garlic extract had the flattest, however Pleo, Movento, Nanoparticles Zinc oxide, Marshal and KZ oil lie in between. This reflects the superiority of Radient and inferiority of Garlic extract. Radient was the most toxic compound, whereas Garlic extract was the least toxic one. the initial reduction of KZ oil (71.83, 72.80, 71.50 and 70.95) in both varieties and all of them are above 70% reduction. From these results, it should be suggested using of some effective alternatives such as KZ oil for controlling black vine thrips in compatible program with chemical insecticides instead of conventional individuals' insecticides.

Keywords: *Insecticides, Retithripssyriacus, thrips, grapevine.*

Molecular study on some virulence factors of *S. aureus* isolated from ice cream

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Abstract:

Staphylococcus aureus has many virulence factors such as the production of enterotoxins and their ability to form biofilm. So, the aim of this study is to detect the biofilm forming ability and enterotoxin genes as a virulence factors of *S. aureus*. The aim of this study achieved through the phenotypic and the genotypic detection of biofilm formation of 15 *S. aureus* isolates through congo red agar (CRA) and microtitre plate (MTP) methods phenotypically and genotypically through the detection of *ica* A and *ica* D which are responsible for biofilm formation in *S. aureus* by PCR. This study revealed that five classical staphylococcal enterotoxin genes were detected by PCR technique. The result of Phenotypic biofilm production by CRA method was 11 (73.3%; black colonies) biofilm producer and by MTP was 2(13.3%) strong biofilm producer, 7(46.6%) moderate biofilm producer, 6(40%) weak biofilm producer . The genotypic detection show that 13(86.6%) isolates show presence of *ica*A gene and all of the 15 (100%) isolates have *ica*D. Among the 15 *S. aureus* isolates, there are two enterotoxin genes (*seb* and *see*) were detected. The enterotoxin *seb* gene was detected in 5 (33.3%) *S. aureus* isolates and the enterotoxin *see* gene was detected in 4 (26.6%) *S. aureus* isolates.

Keywords: *Staphylococcus aureus*, *virulence factors*, *ice cream*

Effects of dietary compound probiotics on the growth performance and innate immune response of *Nile Tilapia*

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Abstract

This study was conducted to investigate the effect of addition of two commercial compound probiotics to the Nile tilapia fish`s diets on growth performance and distributed into 3 groups (control and 2 experimental) 30 fish each in three replicates. Fish were mentioned for adaptation in running water for 21 days. Duration of the experimental period was extended for 30 days. Fish were weighted at the beginning and at the end of the experiment. Blood samples were collected for determination of the immune and biochemical parameters. the results indicated a positive effect represented by significant increase in RBCs count, PCV%, Hb Conc., WBCs and differential leukocytic count. The current study clearly demonstrated that compound probiotics can be used to modulate the immune response of Nile tilapia and to enhance the growth performance of Nile tilapia fish.

Key words: *Nile tilapia; Compound Probiotics; Growth performance; Blood biochemistry; Non-specific immunity*.

Enterotoxin Genes in Coagulase-positive and Coagulase-negative Staphylococci isolated From Chicken Production Cycle

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Abstract

Staphylococci are a worldwide cause of human and animal infection and are considered to be one of the most common causes of infections in birds. Enterotoxins produced by some staphylococcal species were recognized as the causative agent of staphylococcal food poisoning (SFP).Only enterotoxins produced by *Staphylococcus aureus* were as yet well characterized. Much less is known about enterotoxigenic potential of coagulase-negative species of genus Staphylococcus (CNS). It has been reported that enterotoxigenic CNS strains have been associated with human and animal infections and food poisoning. Samples collected from chicken production cycle (unhatched eggs, baby chicks, broilers, chicken meat and table eggs) in Luxor, Egypt were tested to investigate the presence of Staphylococcus species and detection of their enterotoxin genes with more special attention for detection of methicillin resistance gene (*mec A*). Samples were tested for *S. aureus* and CNS on the basis of cultural and biochemical properties and confirmed by PCR amplification of *16S rRNA* and *clfa* gene. Results showed that the presence of Staphylococci were 50/150 (33.3%),14% of the samples were *S. aureus* (21/150), while, 19.33% were CNS (29/150). *mecA* gene was detected in (66.7% and 51.7%) among *S. aureus* and CNS respectively. enterotoxins *seb*, *sec* (9.5%) and *see* (4.8%) were found in 5(23.8%) of *S. aureus*, *while sec* and *see* (10.3%) were found in 6(20.6%) of CNS.

Keywords*: CNS, S. aureus, mecA gene, enterotoxin genes, chicken production cycle.*

Studies on potato plants as influenced by stress condition via tissue culture techniques

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Abstract

This study was carried out at the tissue culture lab of Horticulture Dept., Fac. Agric., Minia University, El-Minia, Egypt. *In-vitro* and *in-vivo* condition for screening the response of four potato varieties (Diamont, Purran, Marlima, and Lady Palfour) to water stress induced by adding sorbitol in the culture medium. Four concentrations of sorbitol (0.0, 0.1, 0.2 and 0.3 gm/liter) in Murashige-Skoog (MS) medium were used for exerting the water deficiency stress on the plantlets with three replications in completely randomized design. Data revealed that the previous potato genotypes were significant differed for plantlet height, number of leaves per plantlet, number of nodes per plantlet, number of roots per plantlet and plantlet weight in the medium without sorbitol. Moreover, the results revealed also, different response of potato genotypes to various levels of sorbitol concentrations. The Increasing of drought stress by increasing the concentration of sorbitol lead to significant decreased in previous characters than those in without sorbitol. However, the decrease in previous characters were more pronounced in Marlima and Lady Palfour varieties which considered as susceptible varieties for drought stress. The results indicated also, that the Diamont variety is a drought-tolerant than the other potato varieties used. These results indicated that the simulation of drought stress under in vitro conditions during the regeneration process constitutes a convenient way to study the effects of drought on potato responses. Sorbitol can been used to stimulate drought stress in potato plants as non-penetrating osmotic agents lowering the water potential in away similar to soil drying. In-vitro this technique was shown to be useful in identifying relatively drought-tolerant genotypes at early stages of development and this can be a very useful tool for screening large number of varieties or breeding lines of genotypes within a short time.

Key words: *Potato, Sorbitol, Drought stress, Plantlets, Vitro, Varieties*

Genetic characterization of infectious bursal disease virus in Luxor governorate

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Abstract

Infectious bursal disease (IBD) is a continuing serious problem facing the poultry industry in Egypt. In this study, 500 bursal samples were collected from different broiler flocks in different localities of Luxor Governorate. The flocks were suffering from mortality and bursal lesions during Dec.2014 to Jan. 2016. The samples were tested by AGPT and the result was 12 flocks only were positive for IBD and then the positive samples were isolated in SPF embryonated chicken eggs. All the inoculated embryos died within 2-3 days. The embryos were smaller than normal, congested with hemorrhagic head, and necrotic foci of the liver. Then the presence of virus in embryonated eggs was confirmed by convential PCR. Furthermore, the molecular characterization was performed by direct sequencing of a 620-bp cDNA corresponding to the VP2 variable domain of the polyprotein gene synthesized by PCR. The deduced amino acid analysis found that all examined isolates are very virulent strains. Four local strains used for a nucleotide sequence, percent identity, and phylogenetic tree analysis revealed that four isolates (F21, F23, F24, F26) were very close to very virulent old Egyptian strains Giza 2008.

Keywords: *IBDV; PCR; VP2*

The effect of Cu (+) –Nicotinate complex on regulation gene expression of CYP1A2 in Aflatoxicosed rats

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Abstract:

Aflatoxicosis is a poisoning that result from ingestion of aflatoxin in contaminated food and feed. chronic aflatoxicosis develops hepatocellular carcinoma. Aflatoxins metabolized in body by *CYP2C11, 3A2* into the highly toxic metabolite that will develop hepatocellular carcinoma or CYP1A2 into the less toxic metabolites M1 and Q1. Previously we have published that synthetic Copper nicotinate complex potentiated a prophylactive effect against chronic aflatoxicosis in experimental animals than that recorded by using the highly accepted antagonist beta-hydroxy toluene. The finding that was followed by chromatographic detection of the less toxic metabolites M1 and Q1 in the excreted urine in the exposed animals. In the herein study the liver tissue samples of orally administered rats for 3 weeks with aflatoxin b1 (30µg/kg B.W),with and without association of the copper complex (400µg/kg B.W) were assayed for their gene expression of cytochrome oxidase familie,*1A2*. Their high capacity for cDNA reverse transcription technique was assayed, where the assayed genotyping was matched with the internal hepatic standard *Gapdh*, as well as histopathological examination of the hepatic tissue samples was performed. The obtained data denotes that the copper nicotinate complex significantly enhancing the cytochrome p450 *1A2* that synthesize the less toxic metabolite M1and Q1.The histopathological examination mostly confirming such observation where the histopathological signs of aflatoxicosis were apparently absent by using the copper complex in the induced animals for aflatoxicosis. Consequently, it could be predicted that the Copper nicotinate complex may be medically used as inhibitory food additive agent against exposure of aflatoxicosis in the intact animals, since the complex contains the copper and nicotinic acid that two daily required biochemical elements for sustaining live in healthy conditions.

Keywords: *aflatoxin, cytochrome P450 (CYP40) , copper nicotinate complex***.**

Combining ability for some traits in bread wheat under different sowing dates

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Abstract:

A half-diallel set of crosses among eight bread wheat genotypes was made during 2015/2016, 2016/2017 and 2017/2018 growing seasons to study combining ability for number of kernels/spike, Grain yield/plant and 100-Kernel weight traits. Twenty eight of F_1's and F_2's crosses and their parents were evaluated under two sowing dates; 22nd November (normal) and 30 December (late) in 2017/2018 growing seasons at the Experimental Farm of South Valley University, Qena. Results showed that, wheat genotypes were differed in their responses under the two sowing dates for most the studied traits. Both GCA and SCA variances were Significant for the studied traits under the different dates. On the basis of GCA/SCA ratio, both additive and non-additive types of gene action were found to be importance in the inheritance of the studied traits. Based on effects, the parent Sids1were best general combiner for grain yield per plant. Among the crosses, the most desirable SCA effect for grain yield per plant were exhibited by P_6xP_7 andP_1xP_5 at the late sowing dates. These parents and crosses may be used for improvement Number of kernels/spike, Grain yield/plant and 100 -Kernel weight traits under different dates.

Key words: *wheat, sowing dates, Diallel cross, Combining ability*

Light microscopy of alarm precursor cells in the skin of catfish (*Clarias gariepinus)*

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Abstract

Alarm pheromone plays an essential role in the innate defensive mechanism of aquatic life. *Alarm* pheromoneis secreted by specific type of epidermal cells; the alarm cells. These cells exist in a wide range of aquatic species. Studying the functions and nature of the *alarm* pheromone as well as the microscopic structure of the alarm cells have taken a great interest in the biological field. However, the studies lack knowledge about the precursors of the alarm cells. The current study aims to describe the alarm precursor cells in the skin of catfish. Samples from the skin of catfish were taken and processed for light microcopy. Alarm cell precursors were small columnar in shape and had a deep eosinophilic cytoplasm with deeply stained nucleus. They were located at the basal part of the epidermis and gradually enlarged to acquire a round profile during its differentiation into Alarm cells. Alarm cells were large rounded epidermal cells with faintly stained eosinophilic cytoplasm and one or two centrally located nuclei. Further studies are required to confirm alarm cell precursors and their immunological profile.

Effect of NK fertilizers and humic acid on yield attributes of fodder beet under sandy soil conditions

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Abstract

The effect of chemical fertilizers (NK) and humic acid on plant height, root length, root diameter and LAI of fodder beet was carried out in the Experimental Farm of the Faculty of Agriculture, South Valley University at Qena during two seasons on a sandy soil. A field experiment was conducted using a randomized complete block in split plot design with three humic acid treatments and nine fertilization treatments with NK as the main plot and split plot, respectively. The highest values of previous traits were obtained from application of humic acid on soil compared with no application of humic acid. In addition, the highest values of plant height, root length, root diameter and LAI were obtained from treatment T_9 (90 kg N + 100 kg K_2O per faddan). Based on these results, it is recommended to adding humic acid on soil and fertilization with NK by 90 kg N and 100 kg K_2O per faddan for fodder beet under similar soil and climate conditions.

Keywords: *fodder beet, humic acid, N, K, sandy soil*

Effect of sowing dates and biofertilization on growth characters of barley in newly cultivated soil

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Abstract

The effect of integrated use of mineral fertilizers (NPK), humic acid and biofertilizer and sowing dates on growth of barley was assessed. A field experiment was carried out in the Experimental Farm of the Faculty of Agriculture, South Valley University at Qena during two years on a sandy soil. The recommended NPK, humic acid and biofertilizer were applied alone and in various combinations among them. A randomized complete block design, with four replications, was used in this study. The highest values of plant height, LAI, number of leaves per plant and plant dry weight were obtained from application of 75% NPK with humic acid and/or biofertilizer in all growth stags (45, 75 and 105 DAS) accept for the highest values of LAI and number of leaves per plant were from application of 100% NPK at 75 and 105 DAS, respectively. Sowing date at 15th of November gave the highest values of number of leaves per plant and plant dry weight in all growth stags.

Keywords: *NPK, biofertilizers, sowing date, barley.*

Production Of liquid Chocolate (Datella) From Saidy Date Pit

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Abstract

Date–pits are considered as waste although it has high potential to be used as a source for food product. Saidy date–pits are rich sources for nutritive substances, amino acids, fatty acids, polyphenol and flavonoids. In this study, Date seed powder was analyzed for its content of phenolic acid, amino acids and fatty acids as well. Roasted Date seed powder used to produce liquid chocolate (Datella). The results showed that, fifteen amino acids were detected in Saidy date pits amino acid profiles, lysine (Lys) was the predominant amino acid 18.58 g/100g protein. There are twenty-four phenolic acids were identified in date pits among them Pyrogallol proved the highest value (3475.95 ppm). Moreover, hesperidin (56.63 mg/100g) was the highest compared with other flavonoids compounds. The sensory evaluation showed that all formulas of Datella chocolate have gained high acceptability for color, taste, texture, appearance and the overall acceptability.

The study concluded that, Saidy date pits a good source for nutritive compounds and could be used successfully in food product with high acceptability.

Key words: *Saidy, amino acids, date pits and Datella*

Effectiveness of the nano matriales zinc oxide(ZnO), titanium dioxide(TiO2) and Cadmium sulphate (CdS) on Subterranean termites, *Psammotermes hypostoma* (Desneux) under field conditions

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Abstract

Termite (White ants) is an exopterygotous insect, which belong to the order Isoptera, and classified into two groups, subterranean and dry wood termites. Subterranean termites, *Psammotermes hypostoma* (Desneux) has become major urban pest also it has a great economic effect in Egypt due to the large damage of the buildings, rural brick mud, timber farmed and furniture. Using traditional strategies to control cusses many hazards on environment and humane health. Three of mineral nano-materials zinc oxide (ZnO), titanium dioxide (TiO_2) and Cadmium sulphate (CdS) as new technic to control the Subterranean termites, *P. hypostoma* .The study cleared that the nano-materials prevent attacks the workers on traps .

Key word: *Subterranean Termite Psammotermes hypostoma nanomaterial's control*

Does Consuming *Aloe Vera* Yoghurt Cause Male Infertility? A 14-day *in vivo* study

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Abstract

Aloe vera (AV) is a medicinal plant used for treatment various health problems thousands of years ago. Recently, AV is considered as a functional raw material in food technology of dairy products. The aim of the current study is to investigate the effect of AV and/or yoghurt consumption on testicular histology, sperm quality, and serum testosterone levels of male rats. The plain yoghurt was prepared using fresh cow's milk and starter cultures. *Aloe vera* yoghurt was prepared containing AV (10 or 20 %). Six groups of rats orally fed with distilled water or yoghurt and/or AV for 14 days. After 7 days of feeding, rats treated with AV and/or yoghurt showed a decline in both epididymal sperm concentration and testosterone levels. Surprisingly, sperm motility decreased significantly ($P < 0.05$) after 7 days 7 of yoghurt consumption. Further, histopathological examination of the testes showed mild to severe degenerative changes in seminiferous tubules of rats fed with AV at 10 and 20% respectively. Therefore, it can be concluded that the AV and/or yoghurt consumption may produce infertility in male rats. This work was supported by Science and Technology Development fund (STDF, Egypt) under grant No. 2505.

Keywords: *Aloe vera, Yoghurt, Sperm, Testes.*

Using *Aloe Vera* extract in the production of some dairy products

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Abstract

Aloe vera (AV) is widely used as functional raw material in food especially in dairy products. The aim of the present study was to evaluate the *in vitro* and *in vivo* effect of AV addition on yoghurt quality and general health status of rats. The plain yoghurt was prepared using fresh cow's milk and starter cultures. *Aloe vera* supplemented yoghurt was prepared containing four different concentrations of AV (5, 10, 15, and 20 percent). Yoghurts samples were analyzed for total solids, fat, ash, pH, and titratable acidity at day 1, 7, and 14 of cold storage (~4±1°C). A sensory evaluation and microbiological analysis also conducted on the fresh yoghurts. For an *in vivo* study, six groups of rats fed for 14 days with either plain yoghurt or AV yoghurt (10% and 20%). Serum protein and lipid profiles were assessed and liver histopathological examination was performed. The physicochemical study showed that pH was inversely proportional to the concentration of AV extract in yoghurt. Increased levels of AV resulted in a decreased pH and increased titratable acidity during storage period. In addition, increased levels of AV lead to lower total solids and fat contents over time. On the other hand, the treatment with AV increased ash contents over time. Consumers found that 5% and 10% Aloe vera fortified yoghurts were acceptable while 15% and 20% AV fortified yoghurts were not accepted. Based on microbiological evaluation, the total bacterial counts decreased significantly in all AV fortified yoghurts samples at day 7 then increased significantly at day 14 for 5% and 10% a AV fortified yoghurts. Furthermore, a noticeable improvement in the liver architecture and lipid profile of rats fed with yoghurt and low concentrations of AV simultaneously observed. These results suggest the possibility of utilizing low concentrations of AV as a herbal enriched ingredient in yoghurt manufacture to improve their nutritional value and the health benefits. This work was supported by Science and Technology Development fund (STDF, Egypt) under grant No. 2505.

Keywords: *Aloe vera*, Yoghurt, Rats.

Modulation of Glucose Homeostasis in Rats Treated with Bacterial Lipopolysaccharide: Role of L-Arginine Counter-Strategy

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Abstract

Lipopolysaccharide (LPS), an endotoxin derived from the outer membrane of Gram-negative bacteria, mediates a local or systemic inflammatory response. Its action is carried out through stimulation of Toll-like receptor 4 (TLR4) activity and subsequently, production of interleukin-1β (IL-1β), tumor necrosis factor-α (TNF-α), and interferon-gamma (INF- γ). The purpose of this study was to assess the effect of L-arginine (L-Arg) on pancreatic function in rats treated with LPS. Therefore, rats were weighed, randomly divided into 4 groups (five rats in each group), and intraperitoneally injected as follow: Control group (saline, 0.1ml/100g b.wt), LPS group (LPS, 1 mg/kg b.wt), L-Arg group (L-Arg, 10 mg/kg b.wt, for 7 days), and LPS+L-Arg group (L-Arg, 10 mg/kg b.wt, for 7 days then once injected with LPS, 1mg/kg). Serum glucose and insulin levels were assessed at 6, 12, 24, and 72 hours after LPS or saline injection. Histological examination of the pancreas tissue also performed. Serum glucose levels were declined in single LPS treated rats 6 and 12 hours and elevated at 24 and 72 hours after LPS injection. On contrary, Serum glucose levels were elevated 6 and 12 hours and declined near to control level 24 and 72 hrs after saline L-Arg injection. However, insulin levels were slightly elevated 24 and 72 hours after LPS injection and 6 hours after L-Arg injection. Histologically, rats treated with LPS and/or L-Arg showed no significant changes in islets of Langerhans. In conclusion, the results of this study support the hypothesized relationship between Nitric Oxide (NO) synthesis and modulation of glucose metabolism and suggest that NO may has a dual role in the modulation of glucose homeostasis depending on intensity and stage of inflammation. This work was supported by Science and Technology Development fund (STDF, Egypt) under grant No. 2505.

Keywords: LPS, L-Arginine, Homeostasis, Glucose.

Detection of *E. coli* in chicken by Polymerase Chain Reaction (PCR)

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Abstract

This study was carried out during the period between September 2013 and March 2014 in the Microbiology Department, Faculty of Medicine, Assiut University; and Molecular Biology Research Unit, Assiut University. It aimed to isolate *E.coli* from the liver, lung, and intestinal contents of chicken by conventional culture method using two different selective media, to identify *E.coli* by using API 20 E system, establishing a specific, sensitive and rapid Polymerase Chain Reaction (PCR) assay for the detection of *E.coli* and comparison among conventional culture method, API20E and PCR for identification of *E.coli*. For this reason a total number of 150 organs (60 liver, 45 lung and 45 intestinal contents) of recently dead chickens that died due to acute diarrhaea during several outbreaks in different farms at Assiut, Minia and Sohag governorates. It had been shown that the conventional methods for E.coli detection by culturing present serious difficulties for standard selection. There is no general agreement concerning determination of the gold standard for the detection of these pathogens. The results demonstrated the value of API 20 E test in identifying the atypical and non-typical E.coli isolates and rising the positivity of the negative E.coli isolates. PCR indicated that the sensitivity of 100% compared to 64% for API 20E. In conclusion, the present study showed that the PCR amplification assay was not only highly sensitive, but also could provide a result on the same day that a spicemen was submitted for evaluation, a potential advantage during outbreak investigations, that provide specific, rapid, simple and convenient test.

Detection of Toxigenic Staphylococcus Aureus in Locally Slaughtered Chicken and Beef in Luxor City by Using of Multiplex PCR

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Abstract

Out of 200 examined food samples (75 raw meat, 75 chicken meat and 50 Stool Swab), 41 (20.5%) *S. aureus* isolates were identified. The highest isolation rate was observed in Chicken samples (22.7%) followed by fresh meat samples (18.7%), Children's Stool Swab (20%). Out of 41 *S. aureus* isolates 15 could produce enterotoxins (A-E) and 10 *mecA* by using Multiplex PCR Technique. All of 15 (53.3%) tested *S. aureus* isolated from fresh meat were positive for SE(S. enterotoxins) occurrence. The prevalence of *sec* was higher SE(7 sec + 1seb)and present of *mecA* 5 out of 10 (50 %), 3 out of 15 (20 %) tested *S. aureus* isolated from Chicken were positive for SE occurrence. The prevalence of *sec* was higher SE (2 sec + 1sed) and presence of *mecA* 3 out of 10(30 %) and 4 out of 15 (26.6%) tested *S. aureus* isolated from children's Stool Swab were positive for SE occurrence. The prevalence of *sec* was higher SE (3. sec + 1seb) and presence of mecA 2 out of 10 (20%).

***Keywords**: S. aureus, mecA gene, enterotoxin genes, raw meat, chicken meat and Stool Swab.*

Salinomycin toxicity in poultry – Shielding effect of antioxidant

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Abstract:

Salinomycin is an ionophor antibiotic elaborated by the strain of *Streptomyces albus*. Salinomycin toxicity is a real challenge facing poultry industry. In this study we evaluated the potential ameliorating effects of vitamin E against salinomycin toxicity in broiler. Toxicological analysis revealed that administration of 120-ppm salinomycin induced decrease in body weight, feed consumption, and feed conversion. Interestingly, co-administration of salinomycin (120 ppm) with vitamin E led to a significant improve in the body performance. Hematological analysis revealed that salinomycin (120 ppm) induced decrease in blood parameters (RBCs count, TLC count, Hb content and PCV %), where the concurrent uses of vitamin E with salinomycin led to a noteworthy improvement of blood parameters. On biochemical aspects, salinomycin at 120 ppm induced a significant increase in enzymes activities (AST and ALT). The uses of vitamin E with salinomycin (120 ppm) caused significant decrease in their activities. The histopathological studies revealed that salinomycin at 60 ppm or 120 ppm in the ration of chickens induced various pathological changes in the studied tissues (liver, heart, kidney, skeletal muscle) ranged from degeneration to necrosis. Therapeutically, concurrent administration of salinomycin with vitamin E decreased the pathological changes of studied tissues. In conclusion, this study showed that Vitamin E has a potential ameliorating effects against salinomycin toxicity. Therefore, we recommend to supplement vitamin E with salinomycin in the poultry feed to avert the hazardous effects of salinomycin.

Number, duration and annual generation of the peach fruit fly, *Bactrocera zonata* (Saunders) and its Predicting peaks under the field condition at Qena region, Egypt.

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Abstract

Experiments of this investigation were conducted at Qena region, Egypt using sex pheromone trap (methyl eugenol) to capture *B. zonata* male flies throughout 2013 and 2014 seasons. The results revealed that the insect had 7 annually generation during both seasons in 2013 and 2014, while the seven and sex generation in guava orchard during the first and second seasons considerable economically generations were occurred through the stage of fruit maturity. predicting of peach fruit fly *B. zonata* male annual peaks were carried out by studying the relations between the accumulated thermal heat units expressed as degree-days (DD'S) and the population fluctuation of male flies for both successive seasons. Generally, the expected peaks were always delayed compared to the observed peaks.

Keywords*: peach fruit fly, B. zonata (Saunders), annual generation, degrees-day, predicting.*