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<th>No.</th>
<th>Title</th>
<th>Abstract</th>
<th>Author's</th>
<th>Journal</th>
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<td>1</td>
<td>Photosynthetic adaptation of <em>Euphorbia fractiflexa</em> (Euphorbiaceae) and survival in arid regions of the Arabian Peninsula.</td>
<td>Arid regions of the Arabian Peninsula are characterized by a short wet season with erratic rainfall, high temperature, and high evaporation. In these arid regions, the leafless stem succulent <em>Euphorbia fractiflexa</em> S. Carter &amp; J.R.I.Wood (Euphorbiaceae) is an abundant perennial. Work presented in this paper aimed at investigating crassulacean acid metabolism (CAM) as a physiological adaptation crucial for survival of <em>E. fractiflexa</em> in arid regions of the Arabian Peninsula. Work involved investigations of stomatal diffusive conductance, chlorophyll fluorescence, and cell sap titratable acidity. Results represent the first report of obligate CAM in <em>E. fractiflexa</em>. Low values of stomatal conductance and dampening of CAM acidification–deacidification cycles during the long dry season also denoted tendency of this species to shift from obligate CAM to CAM-idling. Results also showed water stress-induced reduction in Photosystem II (PSII) activity occurring in concomitance with increased non-photochemical quenching of chlorophyll fluorescence denoting operation of non-photochemical energy dissipation mechanisms.</td>
<td>Al-Turki, T.A.; Masrahi, Y.S. and Sayed, O.H</td>
<td><em>J. Plant Interactions</em>, DOI: 10.1080/17429145.2013.774442.</td>
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### Faculty of Science,
**Biology Department**

**The Publications 2013, Biology Department, Faculty of Science**

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<td><strong>2</strong></td>
<td><strong>Water Resources Management of Hababah Town, Yemen</strong></td>
<td>Hababah town is a part of the District of Thula, one of the twenty districts of the Governorate of Amran. Hababah is suffering from water supply due to the fact that water supply from the public network comes once a month for a few hours. Communities are starting to repair and maintain their previous traditional cisterns and constructing new cisterns in cooperation with the local population and charity men without any support or supervision from the Government or local council. More than fifteen cisterns have been rebuilt and rehabilitated for the sustainable use of water resources. More than seven villages around Hababah town are now relying for water from cisterns. Each year, more than 70,000 cubic meters of water cisterns are being used. More than 1,700 families and 13,000 inhabitants are dependent on water cisterns.</td>
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<td>Adel M. Alhababy</td>
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<td>Open Access Scientific Reports, 1:575 doi:10.4172/scientificreports.575 <a href="http://dx.doi.org/10.4172/scientificreports.575">http://dx.doi.org/10.4172/scientificreports.575</a></td>
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<td><strong>3</strong></td>
<td><strong>Isolation and identification of protease producing bacterial strain from Jazan province, KSA.</strong></td>
<td>Ten bacterial strains were isolated from hot and salted soil of Jazan region Kingdom of Saudi Arabia, the one that had the highest proteolytic activity and growth at high temperature (45 and 50°C respectively), was selected. The potent strain was identified and determined as <em>Bacillus cereus</em> according to morphological, biochemical tests and</td>
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<td>Mohamed A. Al Abboud</td>
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<td>Journal of Jazan University. In press</td>
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16S rRNA gene sequencing. The present study recorded that environmental conditions played a vital role in a protease production by bacterial isolate. *B. cereus* was able to produce protease at 25, 35 and 45°C. Proteolytic activity was not recorded when the temperature was the highest at 50°C. The present study revealed that enzyme activity was enhanced in the presence of NaCl at different concentrations of 2.5 and 5%. Also, the strain gave proteolytic activity at pH 7 and 9 more than at pH 3.

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<th>4</th>
<th>Silver nanoparticles biosynthesis by <em>Fusarium moniliforme</em> and their antimicrobial activity against some food-borne bacteria</th>
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<td>The biosynthesis of metal nanoparticles is an expanding research area due to the potential applications for emerging ecofriendly science. The present study proved a rapid and extracellular biosynthesis of silver nanoparticles (AgNPs) by a fungus, <em>Fusarium moniliforme</em>, isolated from infected onion. Upon addition of the silver ion into the flask containing the mycelial mat, the color of the medium changed to brown, typical of the AgNPs. The AgNPs showed maximum absorbance at 420 nm on ultraviolet-visible spectra. The transmission electron micrograph revealed the formation of AgNPs with an average size of about 50-100 nm. The presence of proteins was identified by Fourier transform-infrared spectroscopy. Combination between AgNPs and ciprofloxacin was evaluated for their antimicrobial activities, and</td>
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<td>T.M. Abdel Ghany, Abdel Rhaman M. Shater, M.A. Al Abboud, M. M. Alawlaqi.</td>
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| 5 | Alleviation of salinity stress on maize plants using the extract of the halotolerant alga *Dunaliella bardawil* | Soil salinity has a great impact on decreasing yield potentials of the cultivated crops. The effect of presoaking Zea mays grains in the crude extract of the halotolerant alga *Dunaliella bardawil* on growth and some metabolic activities of salinized plants was investigated in this study. The Presoaking treatment demonstrated a highly significant enhancement in the percentage of seed germination. Moreover, the growth parameters of the pretreated plants were improved at hyposalinity stress conditions comparing with untreated ones. A huge augmentation in the soluble carbohydrates, polyols, free amino acids and proline contents was recorded with the pretreated plants at hypersaline stress conditions. GC-MS analysis identified some bioactive molecules in the algal extract such as nicotinamide, xanthine, dihydroxyphenylglycol and linalool that could potentially participate in the alleviation of the salinity stress. | Ashraf M.M. Essa, Refat M. Ali, Bahget E. Ali | Asian Journal of Biological and Life Science 2(2): 134 -141. 2013 |
| 6 | Using Modified Immunodiagnostic Assays for Detection of Tuberculosis | Tuberculosis is considered highly zoonotic wide spread disease. Specimens were subjected to bacteriological study including microscopical by ZN stained smear, culture onto L-J medium and using Modified Immunodiagnostic Assays for Detection of *Mycobacterium tuberculosis*. | A S Mohamed, A I Amin, H A Abdelrahman, S I Fathalla, K E | Inventi Rapid: Infection |
| 7 | Application of some Biotechnological Techniques for Diagnosis of Salmonella typhi | In this study, a modern technique for the diagnosis of Salmonella typhi using the outer membrane protein was established. To reduce the identification time of the infection by typhoid fever; Salmonella typhi | Khaled E. Elgayar, Iman. M. A. Elkholy, Yasser. M. Abd Elmonem and Hala, M. Abu shady | International journal of current research, 2013. |

| 8 | Control of Gardenia leaf spot and bud rot diseases using some natural plant oils | This study was conducted to through light on the most important fungi affected gardenia (Gardenia jasmenoides Ellis) plant with leaf spot and bud rot diseases and the effect of some plant essential oils as safe management against these fungi in vitro and | Mostafa, M.A, Alawlaque, M.M. and Nour El-Hoda A. Reyad (2013) | . International Conf. on Life Sci. and Tech.Dubai, UAE. January 19-20, 2013 |
in vivo. Isolation trials from infected gardenia plant been taken from Giza governorate during 2010-2011 growing season revealed eleven fungal species related to eleven genera. Botrytis cinerea, Alternaria alternata, Pestalotia langloissii and Cladosporium sp. were the most dominant fungi. These four isolates were differed in their pathogenic capabilities depending on the infected plant part, B. cinerea was exhibited the highest percentage of rotted buds while A. alternata and P. langloissii were only infected the leaves. A. alternata was exhibited the highest disease severity. Among twenty plant essential oils tested in vitro, Cumin (Cuminum cyminum) oil was the most effective one, completely inhibited the mycelial growth of the tested fungi at 500 ppm. Generally spraying gardenia plant by cumin oil at 2500 ppm. mixed with clove oil at 5000 ppm. concentration was the best treatment that significantly decreased the disease incidence under greenhouse conditions.

mainly of children under 5 years of age. The most prevalent and dangerous type of malaria is caused by Plasmodium falciparum. P. vivax is a common cause of malaria in Latin America, Asia, and Oceania, but not Africa. P. malariae and P. ovale are much less common. Antimalarials are used in three different ways: prophylaxis, treatment of falciparum malaria, and treatment of non-falciparum malaria. Prophylactic antimalarials are used almost exclusively by travelers from developed countries who are visiting malaria-endemic countries. The antimalarials in common use come from the following classes of compounds: the quinolines (chloroquine, quinine, mefloquine, amodiaquine, primaquine), the antifolates (pyrimethamine, proguanil and sulfadoxine), the artemisinin derivatives (artemisinin, artesunate, artemether, arteether) and hydroxynaphthaquinones (atovaquine).

| 10 | Effect of Gingerol on the Climbing Ability of Parkinson Disease Model Flies. | Objectives: Gingerol has been reported to show antioxidant activity through scavenging of superoxide, hydroxyl radicals and by inhibiting lipid peroxidation. It is an alcohol of oleoresin and the aroma of ginger is due to its oil. The model | Tanveer Beg, Y.H. Siddique, S. Jyoti, F. Naz, S.F. Mujtaba | 20th World Congress on Parkinson’s Disease and Related Disorders, Geneva, Switzerland, Dec 8-11, 2013, Abstract Book |
flies of Parkinson’s Disease (PD) based on α-synuclein (αS) (wild form) expression in flies were used in the present study. A time dependent loss of dopaminergic neurons and the formation of intracellular aggregates of αS (Lewy bodies) have been reported in the PD model flies. In the present study, the effect of gingerol supplementation in diet was studied in PD model flies.

Methods: The flies were cultured on standard Drosophila food at 25°C. Crosses were set up using six virgin females of UAS-Hsap/SNCA. F5B were mated to three males of GAL4elav. The progeny expressing the human α-synuclein (PD flies) were exposed to 50, 100, and 150 μM of gingerol mixed in the diet for 24 days. Hsap/SNCA.F strains were taken as control. The climbing assay was performed after 24 days of the exposure. The mean values of various fly groups were statistically compared using unpaired group of the student t-test.

Results: The results showed a dose dependent significant delay in the loss of climbing ability.

Conclusion: Gingerol is potent in delaying the loss
Objectives: Genistein is found in soybean seeds in the form of glycosides. Besides having anti-carcinogenic effect, it is the inhibitor of kinases and has antioxidant properties. There are various genetic models of Parkinson’s Disease (PD) based on α-synuclein (αS), primarily the transgenic over expression of mutant or wild forms in mice or flies. A time dependent loss of dopaminergic neurons and the formation of intracellular aggregates of αS (Lewy bodies) have been reported in the PD model flies. In the present study, the effect of genistein supplementation in diet was studied in PD model flies. Methods: The flies were cultured on standard Drosophila food at 25°C. Crosses were set up using six virgin females of UAS-Hsap/SNCA. F5B were mated to three males of GAL4elav. The progeny expressing the human α-synuclein (PD flies) were exposed to 50, 100, and 150 μM of genistein mixed in the diet for 24 days. Hsap/SNCA.F strains were taken as control. The climbing assay was performed after 24 days of the exposure. The mean values of various fly groups were statistically compared using unpaired group
12 | Protective Effect of Nordihydroguaiaretic Acid in Transgenic Drosophila Model of Parkinson's Disease. | Objectives: Nordihydroguaiaretic acid (NDGA) is a potent anti-oxidant compound of *Larrea tridentata* and has been reported to reduce cell damage by free radicals. In our earlier study on fly model of Parkinson’s disease (PD) it delayed the loss of climbing ability. It has also been reported to inhibit the accumulation of α-synuclein that plays a fundamental role in the etiology and pathogenesis of PD. In the present study the effect of NDGA was studied on lipid peroxidation and protein carbonyl content in the brains of transgenic Drosophila model of PD. Methods: The flies were cultured on standard Drosophila food at 25°C. Crosses were set up using six virgin females of UAS-Hsap/SNCA.F 5B were mated to three males of GAL4elav. The progeny expressing the human α-synuclein (PD flies) were exposed to 0.1, 0.5 and 1.0 μl/ml of NDGA mixed in the diet for 24 days. Hsap/SNCA.F strains were taken as control. The lipid peroxidation and protein carbonyl content was measured. Results: The results showed a dose dependent significant delay in the loss of climbing ability. Conclusion: Genistein is potent in delaying the loss of climbing ability. | Y.H. Siddique, Tanveer Beg, F. Naz, S. Jyoti | 20th World Congress on Parkinson’s Disease and Related Disorders, Geneva, Switzerland, Dec 8-11, 2013, Abstract Book 522, pp. 141. [http://www2.kenes.com/parkinson/abs/Pages/AbstractSubmission.aspx](http://www2.kenes.com/parkinson/abs/Pages/AbstractSubmission.aspx)
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<th>13</th>
<th>Apigenin Reduces the Oxidative Stress in the Brains of Transgenic Drosophila Model of Parkinson's Disease.</th>
<th>measured in the brains of control, treated with NDGA, L-dopamine, untreated and control flies treated with NDGA flies. Results: A dose dependent significant decrease in the lipid peroxidation and protein carbonyl content (Figure 2) was observed in the brains of PD flies. Conclusion: NDGA is potent in reducing the oxidative stress in the brains of PD model flies.</th>
<th>Y.H. Siddique, Tanveer Beg, F. Naz, S. Jyoti</th>
<th>20th World Congress on Parkinson’s Disease and Related Disorders, Geneva, Switzerland, Dec 8-11, 2013, Abstract Book 518, pp. 139-140. <a href="http://www2.kenes.com/parkinson/abs/Pages/AbstractSubmission.aspx">http://www2.kenes.com/parkinson/abs/Pages/AbstractSubmission.aspx</a></th>
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Objectives: In our earlier study apigenin was reported to delay the loss of climbing ability in the PD model flies expressing normal alpha synuclein. In the present study we have studied the antioxidant potential of apigenin. Methods: The flies were cultured on standard Drosophila food at 25°C. Crosses were set up using six virgin females of UAS-Hsap/SNCA. F5B were mated to three males of GAL4elav. The progeny expressing the human α-synuclein (PD flies) were exposed to 0.1, 0.5, and 1.0 μl/ml of apigenin mixed in the diet for 24 days. Hsap/SNCA.F strains were taken as control. The lipid peroxidation and protein carbonyl content was measured as a marker.
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<th>14</th>
<th>Alteration in protein contents and polypeptides of peanut plants due to herbicides and salicylic acid treatments</th>
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<td><strong>Results:</strong> A dose dependent significant decrease in the lipid peroxidation and protein carbonyl content was observed. <strong>Conclusion:</strong> Apigenin is potent in reducing the oxidative stress in the brains of PD model flies.</td>
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<td>The goal of the present study was to evaluate the protein contents and polypeptides of peanut cultivars (<em>Arachis hypogaea</em> L. cv. Giza 5 and Giza 6) under the influence of fusilade and basagran herbicides. The role of salicylic acid (SA) for alleviation the toxicity of herbicides was evaluated. After two weeks of treatments, the protein composition and polypeptides of peanut leaves compared to the control plants were analyzed. The results showed that increase concentrations of fusilade and basagran caused an increase in the insoluble and total protein contents of both leaf peanut cultivars. In contrast, the soluble protein of both cultivars showed variable contents depended on the herbicide concentration and cultivars. Spraying or mixed 1 mM of salicylic acid with 1.5 recommended field dose (FD) of fusilade or basagran herbicides treated plants increased leaf total protein contents of peanut Giza 6 cultivar</td>
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<td>Khalaf Ali Fayez, Deya Eldeen Mohamed Radwan, Asmaa Khalaf Mohamed, Abdelrahman Mahmoud Abdelrahman</td>
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<td>Journal of Environmental Studies [JES] 2013. 11 Accepted</td>
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<tr>
<td>15</td>
<td>Adaptive responses of olive leaves (Olea europaea L.) to cement dust pollution in Libya.</td>
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### Contrary, Proline content of leaves isolated from polluted sites was higher than those of control. Leaves from polluted and unpolluted sites showed some seasonal differences in their response to cement dust in most of the analyzed parameters.

### Morpho-Anatomical Characteristics of Olive (Olea europaea L.) Trees Leaf as Bio-indicator of Cement Dust Air Pollution in Libya.

Comparisons were made between the anatomical and morphological changes in olive tree leaves from a site with relatively clean air (Al-Khadra area), and two sites (al-Khums and Zelatin) near to cement factories in the area east to Tripoli, Libya. Olive tree leaves exhibited marked variations in their morphological and anatomical characteristics, in relations to variations in the site cement dust air pollution load. Under high pollution load, leaf visible injuries were recorded. In addition, stomata appeared in higher density and smaller size than those of control. The anatomical characteristics of olive leaf including cuticle, epidermis, palisade tissue, mesophyll tissue, and elements of vascular cylinder (xylem and phloem) reflected the deteriorate effects of cement dust air pollutants, the subject which recommend their using as bio indicators.

### Wheat affected by herbicides; Physiological, Subcellular and Molecular studies.(Book

Treatment of wheat cultivars with various doses of either diuron, MCPA or grasp herbicides show several effects on growth, biochemical parameters, cell organelles and protein polypeptides. Seedling

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**El-Khatib A. A., Radwan D. E. M., A. A. Alramah-Said**

Journal of environmental studies. Accepted 2013

**Radwan, D.E.M.**

of MSc content). shoot and root lengths were highly inhibited with both MCPA and grasp herbicides, while diuron shows no effect. A sharp decrease in nitrate reductase activity, carbohydrate, protein contents in almost all treated samples. All the three herbicides caused accumulation of proline amino acid in both seedling and vegetative stages. Ultrastructural investigations revealed that, disorganization of chloroplast components and production of numerous vesicles was also observed in response to the three herbicides. Among herbicides, diuron caused disappearance of starch grains and reduces in plastoglobuli number. MCPA caused partially or totally disruption of chloroplast envelope. A numerical increase in plastoglobuli was noted in either MCPA or grasp treated chloroplasts. Chloroplasts tended to be spherical in shape by grasp herbicide application. Wheat roots treated with diuron showed deposition of electron dense material in vacuoles. Abnormal distribution of cellulose in cell walls was also noted in roots treated with either diuron or MCPA. Disruption of nuclear membrane and degeneration of nuclear material was observed in MCPA-treated roots. The three herbicides caused many alterations in protein
| 18 | Mononchida (Nematoda) from Silent Valley National Park, India. | Six known and a new species of nematodes belonging to the Order Mononchida Jairajpuri, 1969 are described and illustrated from Silent valley National Park, India. *Cobbonchus vulvastriatus* n. sp. has 0.92-0.11 mm long body; buccal cavity 25-27×12-13 μm, dorsal tooth comparatively large with its apex at 72-81% from base of stoma; subventral teeth slightly smaller with their apices at 40-41% from the base of stoma; female genital system amphidelphic, 1-3 pre-vulval and 2-4 post-vulval cuticular infoldings present; spicules 1.2-1.4 times the cloacal body diameter long; gubernaculum trough-shaped with distal thickening; lateral guiding pieces small; ventromedian supplements six, spaced; tail conoid, curved ventrad, tapering, beak-shaped; caudal glands well developed, arranged in tandem, spinneret terminal. *Clarkus sheri* (Mulvey, 1967) Jairajpuri, 1970; *Mylonchulus amurus* Khan and Jairajpuri, 1979; *Mylonchulus mulveyi* Jairajpuri, 1970 and *Mylonchulus paraind* Ahmad, 2017. | Tabinda Nusrat, Anjum Ashar and Ahmad W. | Zootaxa 3635 (3), 224-236, 2013 DOI:10.11646/zootaxa.3635.3.2 |
Baniyamuddin and Jairajpuri, 2005 are recorded for the first time from this park. *Iotonchus pseudodigonicus* Ahmad and Jairajpuri, 1983 and *Iotonchus silvallus* Ahmad and Jairajpuri, 1983 is also redescribed based on additional material.

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<td>19</td>
<td>A new species of the rare nematode genus <em>Margollus</em> Peña-Santiago, Peralta &amp; Siddiqi, 1993 (Nematoda: Tylencholaimoidea) from Turkey. <em>Margollus turcicus</em> sp. n., is described and illustrated from vineyard soil in Turkey. The new species is characterized by having a medium sized body (L=1.0-1.2 mm); cuticle with distinct striations; radial refractive elements abundant; lip region distinctly narrower than the adjoining body and slightly offset from the body contour by a depression; cephalic and labial papillae not discernible; strong labial and post-labial sclerotization present; amphids well developed with sclerotized walls; stylet 27-28.5 µm long, odontophore distinctly flanged, 0.3 times the odontostyle length; pharyngeal bulb offset by constriction, 33-37 µm long; mono-opisthodelphic female genital system with anterior branch 22-41 µm long; spicules 49 µm long; single weak ventromedian supplement and short hemispheroid tail in both sexes.</td>
<td>Ahmad W., Sumaya Ahad and Sturhan D</td>
<td>Zootaxa 3646 (5), 575–580, 2013 DOI: 10.11646/zootaxa.3646.5.6</td>
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<td>20</td>
<td>Effects of Lindane on Lindane-Degrading <em>Azotobacter chroococcum</em>; Evaluation of Toxicity of Possible Degradation Product(s) on Plant and Insect.</td>
<td>The effects of lindane on growth and plant growth-promoting traits of two lindane-degrading <em>Azotobacter chroococcum</em> strains (JL 15 and JL 104) were determined. The potential of both <em>A. chroococcum</em> strains to degrade lindane was also determined. Lower concentrations of lindane had a stimulatory effect, and higher concentrations generally had an inhibitory effect on growth and plant growth-promoting activities. A high percentage (&gt;90%) of lindane was degraded by both strains at a lindane concentration of 10 ppm. Lindane at 1,000 ppm decreased seed germination and reduced seedling fresh weight. However, the possible degradation products for a starting lindane concentration of 10 ppm was found to be non-phytotoxic. Toxicity studies with larvae of <em>Spilarctia obliqua</em> resulted in an LC50 estimate of 3.41 ppm for lindane solutions into which leaf discs were dipped. No toxicity was observed for possible degradation products.</td>
<td>Sangeeta Paul, Bishwajeet Paul, Md. Aslam Khan, Chetana Aggarwal, Jyoti K. Thakur and Maheshwar S. Rathi</td>
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<td>21</td>
<td>Microbial control of <em>Spilarctia obliqua</em> (Lepidoptera : arctiidae).</td>
<td>Relative efficacy of all ten tested <em>B. thuringiensis</em> subsp. and strains, irrespective of stage of the insect reveal that <em>Btk</em> HD-73, <em>Bt sotto</em> and <em>Bt aizawai</em> were highly effective and registered 75.83% mortality.</td>
<td>Md. Aslam Khan</td>
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per cent, 74.72 per cent and 73.05 per cent larval mean mortality, respectively. *Bt N1C1, Btk HD-1, Bt thuringiensis* and Dipel formed the next effective group of test pathogens and were at par with the above mentioned group of *B. thuringiensis* as they registered more than 65.00 per cent mean mortality. Rest of the subsp. and strains viz., *Bt entomocidus, Bt galleriae* and *Btk path-1* were less effective as they registered comparatively low mortality *i.e.* less than 65.00 per cent. In the present study *Btk HD-73* was found superior over all others tested *B. thuringiensis* subsp. and strains by registering 75.83 per cent mean larval mortality however, *Btk path-1* was noticed least effective against all the tested instars of *S. obliqua* by registering 60.22 per cent mean larval mortality. Among the six larval stages, males and females, the first instar larvae, in comparison to second instar were found to be more susceptible to all the tested *B. thuringiensis* subsp. and strains except Dipel and *Btk path-1* which caused low mortality. The second instar larvae, in comparison to third instar were found to be more susceptible except *Btk HD-73* which registered equal mortality in both the instars. The third instar larvae, in comparison to
fourth instar, fifth instar and sixth instar larvae exhibited greater mortality to all the tested *B. thuringiensis* subsp. and strains. Critical growth phase, responsible for changes in the susceptibility of the insect was noticed between hatch and third instar. Once this stage is over, little difference occurs between treated and control larvae of *S. obliqua*.

| 22 | Effective control of *Spilarctia obliqua* through *Bacillus thuringiensis* and endosulfan | With the discovery of organophosphorus, organochlorines, organocarba
dates and synthetic pyrethroids, chemical insecticides have been the backbone of insect control. Serious environmental and health issues began to be recognized by the presence of chemical residues in food, water and air along with resistance development in insects. To counteract this contamination, attention and efforts were directed to use microbial pesticide (Dipel) in various combinations with chemical insecticide (endosulfan) against *Spilarctia obliqua* (Walker). The highest larval mortality (86.67 per cent) was observed in case of endosulfan, 0.07% with Dipel, 0.075% twenty four hours after the treatment. Whereas, Dipel alone at 0.03% and 0.075% concentration registered 0.00 and 6.67 per |
cent larval mortality, respectively. Endosulfan at 0.035% in combination with Dipel 0.075% registered 46.67 per cent larval mortality. Results indicate that endosulfan alone at high concentrations or endosulfan at low concentration in conjunction with Dipel at LC$_{50}$ had no significant differences in larval mortality. Dipel alone, four days after treatment, registered 51.67 and 40.00 per cent larval mortality at 0.075% and 0.03% concentrations, respectively. However, endosulfan, 0.07% with Dipel 0.075% registered 98.33 per cent larval mortality. Finally eight days after treatment Dipel 0.075% and 0.03% caused 80.00 and 68.33 per cent larval mortality, respectively. Whereas, endosulfan alone at 0.07% and 0.035% caused 98.33 and 63.33 per cent larval mortality, respectively. Endosulfan 0.07% in combination with Dipel, 0.075% registered 100.00 per cent larval mortality. It can therefore be concluded that Dipel at high or lower concentration in combination with lower concentration of endosulfan is more effective when compared with higher concentrations of endosulfan or Dipel separately. As regards the effect of different treatment in relation to time, endosulfan either
alone or in combination with Dipel registered the larval mortality one day after treatment, whereas Dipel at LC<sub>50</sub> or LC<sub>20</sub> was found almost failed to yield any mortality one day after treatment. Larvae of *S. obliqua* can effectively be controlled by endosulfan 0.035% in combination with 0.075% Dipel and also by different combinations of Dipel with endosulfan. Larval mortality caused by Dipel increase with the time of exposure.

| 23 | Characterization of a new protease produced by a thermohaloalkali tolerant Halobacillus strain. | An extracellular protease was produced by a thermohaloalkali tolerant bacterial strain, designated B300, which was isolated from a salt-affected soil sample collected at Beni-Suef city, Egypt. The bacterial strain was assigned to genus Halobacillus based on the phylogenetic analysis of the 16S rRNA gene. It was found that the protease was produced at the end of the exponential growth phase. The enzyme was purified and characterized by SDS-PAGE and its molecular mass was about 56 KDa. The enzyme had a wide salt range and was dependent on salt concentration for activity, with optimum activity at 55°C and pH 10 in the presence of 10% NaCl. It was inhibited by leupeptin, aprotinin, E-64 and PMSF, while | Hozzein, W.N., Reyad, A.M., Abdelhameed, M.S. and Ali, M.I.A. | *Journal of pure and applied microbiology*, 7(Spl. Edn.): 509-515. |
chymostatin had an extremely low inhibition effect. Therefore, the protease was characterized as a trypsin-type serine or subtilisin-type, but not as a chymotrypsin-type. It was obvious also that the protease under investigation is not metalloproteinase-type or aspartic-type. The production of the enzyme in the culture medium was influenced by the medium composition, temperature, pH and NaCl concentration; and it was induced by the presence of yeast extract in the medium.

| 24 | Isolation and characterization of antimicrobial active compounds from the cyanobacterium *Nostoc commune* Vauch. | In this investigation, antimicrobial activity of *Nostoc commune* Vauch (isolated from agricultural wastewater canal, Beni Suef Governorate, Egypt) organic extracts were examined against nine selected microbial isolates. Four of them were Gram positive bacterial isolates (Bacillus subtilis, Mycobacterium phlei, Sarcina maxima and Staphylococcus aureus), four Gram negative bacteria (Escherichia coli, Proteus mirabilis, Pseudomonas aeruginosa and Salmonella arizonae) and one unicellular fungus (Candida albicans) were evaluated for their resistance against these extracts. Methanol was the best organic solvent for | Abdelhameed, M.S., Hassan, S.H., Mohammed, R. and Gamal, R. | "Journal of Pure and Applied Microbiology, 7(1):109-116." |
| 25 | **A Preliminary study of bacterial Contamination from Elevators** | The present study aims to understand the level of bacterial contamination of elevator buttons at the Faculty of Science building, Jazan University, Jazan, Kingdom of Saudi Arabia. A total of 20 samples (n = 20) were collected using sterile cotton swabs from buttons of 4 different elevators (5 samples each from 4 elevators). Samples were isolated on Nutrient agar and MacConkeys agar. | Khatib Sayeed Ismail | *International Journal of Scientific Research, Vol. 2, Issue 10, pp. 1-2, October, 2013.* [http://theglobaljournals.com/ijsr/file.php?val=MTk0MA](http://theglobaljournals.com/ijsr/file.php?val=MTk0MA) |
| 26 | Study of Bacterial contaminants isolated from Adult Monarch Butterfly (*Danaus plexippus*) found on milkweed (*Calotropis procera*) in the Jazan province of Saudi Arabia. | This study was undertaken to isolate the bacterial contaminants found on the Adult Monarch butterfly (*Danaus plexippus*) found on milkweed (*Calotropis procera*) in Jazan, Kingdom of Saudi Arabia. A total of 50 adult *Danaus plexippus* butterflies (n = 50) were obtained from *Calotropis procera* plant which is a common weed found in Saudi Arabia. The butterflies were caught and transported to the laboratory using sterile aseptic techniques. The butterflies were kept on sterile Nutrient agar and MacConkeys agar plates. The | Khatib Sayeed Ismail | *Journal of Science. Vol. 4, Issue 1, pp. 36 – 39, 2014.* | [http://www.journalofscience.net/File_Folder/36-39.pdf](http://www.journalofscience.net/File_Folder/36-39.pdf) |

![The agars were incubated at 37°C for 24 hours and observed for growth. The colonies were subjected to Grams’ staining and observed under a microscope. All the samples (100%) showed bacterial contamination. Staphylococcus species (20 samples, 100%), Gram negative bacilli (9 samples, 45%), Streptococci spp. (6 samples, 30%) and Gram positive bacilli (3 samples, 15%) were isolated. Staphylococcus species was most dominant followed by Gram negative bacilli, Streptococci and Gram positive bacilli. *Staphylococcus aureus* was isolated from 75% samples. Three samples (15%) were found contaminated by single type of bacteria while 85% samples were contaminated by more than 1 type of bacteria. The presence of bacterial contaminants on elevators indicated the probable tool for spread of pathogenic microorganisms.](http://www.journalofscience.net/File_Folder/36-39.pdf)
agar plates were incubated at 37°C for 24 hours and observed for growth. The colonies were subjected to Grams’ staining and observed under a microscope. The isolates were identified using standard identification procedures. All 50 (100%) samples showed bacterial contamination. Gram negative bacilli, *Pseudomonas aeruginosa* was isolated form 37 (74%) samples and Gram positive bacilli, *Bacillus thuringiensis* was isolated from 27 (54%) samples. Mixed culture of bacteria were found on 14 (28%) of the samples. The presence of bacterial contaminants on adult Monarch butterfly indicated possible health hazard and a probable tool for the spread of microorganisms.

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<th>Latex Agglutination Test: A tool for rapid diagnosis of Rotavirus from HIV sero-positive and sero-negative patients with diarrhea</th>
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<td>27</td>
<td>The aim of this study was to determine the incidence of Rotavirus in HIV sero-positive and sero-negative patients with diarrhea using a rapid Latex agglutination test and to correlate it with the clinical symptoms. A total of 126 patients (74 HIV sero-positive and 52 HIV sero-negative) with diarrhea were enrolled for this study. Of the total study population, 100 (79.37%) were adults and 26 (20.63%) were children. The incidence of acute diarrhea was 54 (42.86%) and chronic diarrhea was 72 (57.14%). Statistically, the difference between them was found to be significant (p = 3.33E–06). Chronic diarrhea was seen in 55 (74.32%) HIV patients.</td>
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sero-positive patients and acute diarrhea was seen in 35 (67.31%) HIV sero-negative patients. Rotavirus was detected in 9 (12.16%) HIV sero-positive patients and in 3 (5.56%) HIV sero-negative patients. Rotavirus positivity was higher in HIV sero-positive patients than in HIV sero-negative patients. Latex agglutination test was found to be a good tool for an easy and rapid detection of Rotavirus in stool specimen, making it an ideal bedside procedure.

| 28 | Phenolic Content, Antioxidant Potential and Aedes Aegyptii Ecological Friend Larvicidal Activity of Some Selected Egyptian Plants. | Nature is the ever evolving source for compounds of medicinal importance, polyphenols among these compounds constitute ubiquitous group with wide range of physiological activities i.e. antioxidant, immune-stimulant, antitumor and antiparasitic. Yellow fever and dengue fever are mosquito-borne infectious diseases transmitted by bites of *Aedes aegyptii*, the presence of yellow fever in sub-Saharan Africa and dengue fever in Saudi Arabia are threats to Egypt with the re-emerging of *Aedes aegyptii* in Aswan and Toshka districts and hence, larvae control is more feasible than flying adults' control. This work was conducted targeting estimation of the relative levels of total phenolic content, antioxidant potential and larvicidal activity of some selected Egyptian plants. | Atef A. El-Hela, Nevein M. Abdel-Hady, Gouda T. M. Dawoud, Abdo M. Hamed and Tosson A. Morsy. | Journal of the Egyptian Society of Parasitology, Vol.43, No.1, pp. 208-226, April 2013. |
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| Content, antioxidant potential and larvicidal activity of one hundred and ten selected Egyptian plant species. The highest total phenolic contents were estimated in aqueous extracts of *Coronilla scorpioides* L., *Forsskaolea tenacissima* L., *Crataegus sinaica* Boiss., *Pistacia khinjuk* Boiss. and *Loranthus acacia* Benth.; they were 916.70±4.80, 813.70 ±4.16, 744.90±4.93, 549.00 ±3.93 and 460.80±4.02 mg% while those of methanol extracts were estimated in *Coronilla scorpioides* L., *Forsskaolea tenacissima* L., *Crataegus sinaica* Boiss., *Loranthus acacia* Benth. and *Pistacia khinjuk* Boiss.; they were 915.60±4.86, 664.60±4.16, 659.30±4.80, 590.80±4.49 and 588.00±3.85 mg% respectively. Investigation of the antioxidant potential revealed that the most potent plants were *Coronilla scorpioides* L., *Forsskaolea tenacissima* L., *Crataegus sinaica* Boiss., *Pistacia khinjuk* Boiss. and *Loranthus acacia* Benth. with calculated values of 454.80±4.83, 418.40±4.16, 399.10±4.90, 342.50±2.72 and 239.70 ±2.91% for aqueous extracts and 452.90±4.94, 389.60 ±4.60, 378.48±3.84, 352.30 ±3.06 and 346.50±2.98% for methanol extracts respectively while screening of |
larvicidal activity proved that *Coronilla scorpioides* L., *Forsskaolea tenacissima* L., *Crataegus sinaica* Boiss., *Pistacia khinjuk* Boiss. and *Loranthus acacia* Benth. exhibited highest potency; they were 22.53±2.01, 23.85±2.07, 28.17±2.06, 31.60±2.93 and 39.73±4.58 mg% aqueous extracts and 18.53±1.95, 18.85±1.67, 20.17±1.85, 23.28±2.70 and 28.48±3.90 mg% methanol extracts respectively.