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Souvenir

International Conference on

**AGRICULTURE, ENVIRONMENT
AND BIOTECHNOLOGY**

(AEB-2020)

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About Conference

International Conference on Agriculture, Environment and Biotechnology (AEB-2020)

During the worldwide lockdown due to COVID 19 pandemic, a lot of important activities have come to a halt. However, when we look at the brighter side, all of us have more time for adding to our knowledge and insights.

With this aim, to keep contributing to learning and motivation International research and development Center for publication is going to organize a two-day International Conference with the title “**International Conference on Agriculture, Environment and Biotechnology (AEB-2020)**” on Dec 17-18, 2020 through online mode.

We hope, this online mode of the conference in COVID-19 pandemic will be an appreciable step in promoting the research activities and new information between researchers, developers, students, academicians and practitioners working in and around the world by keeping the social distance in view to stop the spread of COVID-19 disease. This conference aims is to present the current researches being carried out in the field of social science and education development around the globe.

Prospective authors from academia as well as industry are invited to submit their abstracts that illustrate original/unpublished works and industrial applications describing advances and significant innovations in the field.

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- **Dr. Md Mahadhi Hasan**, Assistant Professor, Department of English, Southeast University, Bangladesh.

Message

I am extremely pleased to share that International Research and Development Center for Publication (IRDCP) is organizing a two days **International Conference on Agriculture, Environment and Biotechnology (AEB-2020)** on Dec 17-18, 2020.

I am sure the state of art lectures from the invited experts and the research findings of researchers, academicians, utility engineers will enrich the knowledge of all the participants. It will provide an excellent opportunity for students to learn new ideas.

I offer my best wishes to the whole team of the organizing committee, the participants, and volunteers for the grand success of the conference.

Dr. Kiran
Convenor LLT-2020

Message

I am happy to know that International Research and Development Center for Publication (IRDCP) is organizing a two days **International Conference on Agriculture, Environment and Biotechnology (AEB-2020)** on Dec 17-18, 2020. I am sure that, this conference would provide an ideal platform for the academicians, scholars and experts to present and exchange their research findings and Ideas.

I wish the conference a great success.

Prof. (Dr.) Hamid Saremi
President (Chancellor)
Assrar Higher Institute of Education (Deemed to be University)
Mashad - Iran
(Ex- Vice- Chancellor Islamic Azad University ,Quchan Branch - Iran)

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Abstract of AEB-2020

Importance of phyto-chemicals for control of mite (*Polyphagotarsonemus latus* Banks)

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Abstract— Chilli (*Capsicum annum* L.) is an important spice and vegetable crop, commercially grown in India throughout the year. Chilli plant is susceptible to various insect and mite pests of which yellow mite, *Polyphagotarsonemus latus* (Banks), (Tersonemidae: Acarina) is most predominant. The mites attack young apical leaves, flower buds and cause curling and crumpling of young developing plant parts resulting shedding of flower buds, flowers and developing fruits. The incidence of this mite population always remained higher on upper canopy of the plant followed by middle canopy and lower canopy. Mites were most densely populated in the young and new leaves of chilli plant on upper canopy. So sprays should be carefully taken on the upper canopy. Among the seven treatments evaluated microbial toxin- avermectin resulted in the best suppression of mite population (86.32% suppression), closely followed by chemical insecticide, fenazaquin (73.07%) and mixed formulation of botanical pesticide, azadirachtin with botanical extract, *Spilanthes* (70.99%). The botanicals, *Spilanthes paniculata* floral parts and garlic were extracted in methanol. Four sprays at 10 day intervals were made. Mite population was recorded 3, 6 and 9 days after each spraying. Avermectin and mixture of azadirachtin with botanical extracts gave moderate to higher mite suppression (more than 64% suppression). Considering moderate to higher efficacy as well as its low toxicity to natural enemies and minimum impact on human health microbial toxin, botanical insecticides, botanical extracts can be incorporated in future Integrated Pest Management (IPM) and organic farming. Azadirachtin individually did not produce higher results but when mixed with botanical extracts gave higher results of mite control recording more than 64 % suppression. This treatment also is recommended for general farmers use.

Keywords— Bio-pesticides, Microbial toxin, Plant extract, Organic cultivation, IPM.

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Comparative efficacy of novel insecticide molecules against sucking pests in cotton

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Abstract— A field trial was conducted to evaluate the efficacy of novel chemistry insecticides in managing the sucking pests of cotton during the year 2018 at Regional Agricultural Research station, Nandyal. Novel insecticide molecules like Flonicmide, Sulfoxaflor, and Spinetoram are very effective against sucking pests of cotton and also they are relatively safer to environment. These insecticides can be conveniently used for sucking pests which are resistance to neonicotinoid insecticides. Results revealed that new molecule Flonicmide @ 0.3 g/lit of water had registered lowest mean leafhopper population of 2.56 and 2.59/3 leaves after first and second sprays respectively followed by Difenthiuran@ 1.25g, Sulfoxaflor@ 0.7ml and Spinetoram@0.6ml which registered 2.93, 3.12, and 3.90 leafhopper population per three leaves respectively after first spray. Same trend was noticed after second spray also. Highest yield of 2348 kg/ha was recorded in treatment Flonicmide @ 0.3 g/lit.

Keywords— Sucking pests, Novel insecticides, Resistance, Mode of action.

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Analysis of microbial and chemical risks in fresh and smoked fishes sold in Togo

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Abstract— The diseases due to fish contamination are an important public health concern worldwide particularly histamine fish poisoning. Histamine is produced during bacterial decarboxylation of the histidine present in fish muscles. The aim of this study is to analyse microbiological and chemical factors of degradation of fresh fish at Lomé fishery port and assess histamine content in smoked fish sold in local market. The method of European Regulation (EC) N° 2074/2005 of December 5, 2005 has been used to determine Total volatile base nitrogen (TVBN) and the content of histamine was performed by Agilent 1290 Infinity II HPLC. The standard NF V08-051: 1999 was used for the count of microbial colonies expressed in colony forming units (CFU/ml). The results show that 100% of fresh fishes were highly contaminated by total aerobic flora (225 0000 CFU/g), Thermotolerant coliforms (88750 CFU/g) and *E. coli* (103 920 CFU/g). The content of Total volatile base nitrogen (TVBN) of anchovies and sardinella was ranged from 23.34 ± 0.23 to 103.14 ± 0.27 mg/100g. Smoked fishes from three markets have shown higher histamine mean levels varying from 295.06 to 746.54 mg/kg. These results show that Togolese are exposed to high concentrations of histamine when consuming smoked fish. Determination of histamine is very important due to its toxicity for humans and as an indicator of the freshness of fish and fish products.

Keywords— Fish, TVBN, Histamine, amine biogenic, Togo.

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