



**IRDCP**  
REMOVING BARRIERS IN THE RESEARCH



2021

## Souvenir

6th International Conference on  
Agriculture, Environment and  
Veterinary Studies  
(AEVS-2021)

International Research &  
Development Center for  
Publication (IRDCP)

April 15-16, 2021

[www.irdcp.org](http://www.irdcp.org)

# 6<sup>th</sup> International Conference on Agriculture, Environment and Veterinary Studies(AEVS-2021)

Apr 15-16, 2021

---

Copyright © 2021 International Research and Development Center for Publication

DOI: [10.22161/conf.aevs.apr.2021](https://doi.org/10.22161/conf.aevs.apr.2021)

Publisher

*IRDCP*

Email: [irdcp.publication@gmail.com](mailto:irdcp.publication@gmail.com) / [conference.irdcp@gmail.com](mailto:conference.irdcp@gmail.com)

Web: <https://irdcp.org/>

## **About IRDCP**

International Research and Development Center for Publication (IRDCP) is a non-profit organization for promoting research and development around the world. IRDCP is the bridge between the quality publisher and researchers. It provides the platform to researchers and academicians for publication in the Scopus Indexed Journals, SCI Journals, Web of Science Journals, UGC Approved Journals, NAAS Rated Journals, Google Scholar Indexed Journals and other good quality DOI journals.

IRDCP is also a partner organization for publication in conference proceedings. We organize the International conferences for publication in SCOPUS indexed and other refereed journals as per the requirement of the authors of the manuscripts. The manuscripts submitted to IRDCP should be plagiarism free and well coherent in all sense.

The scope of publication with the IRDCP covers all type of review and research manuscripts including the Exploratory & Explanatory Research, Descriptive & Theoretical Research, Applied Research & Action Research, Cross-Sectional Research, Quantitative & Qualitative Research in the field of engineering & technology, agriculture & environmental, Social science & Humanities, Literature & Education development, Medical & Health Science.

### **The vision of IRDCP :**

IRDCP endeavors to promote global excellence in the field of research & development through diligent applications of advanced technology for the holistic development of society. Also, IRDCP is committed to motivate and persuade the researchers to take up the projects for the continuous development of human society and make this world a better place to live in. The IRDCP has a steadfast commitment be the fulcrum of the ocean of knowledge around which efforts of researchers move about.

## *About Conference*

### *6<sup>th</sup> International Conference on Agriculture, Environment and Veterinary Studies(AEVS-2021)*

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 “**6<sup>th</sup> International Conference on Agriculture, Environment and Veterinary Studies(AEVS-2021)**” on Apr 15-16, 2021 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.

## **International Advisory Committee**

- Aicha El Alaoui**, Sulatn Moulay Slimane University, Morocco
- Akas Pinarigan Sujalu**, University of 17 Agustus 1945 Samarinda, Indonesia
- Dr. Hamid Saremi**, President(Chancellor), Assrar Higher Institute of Education, Mashad, Iran
- Assoc. Prof Dr. Mehmet Karakaş**, General biology and zoology, Physiology, Ankara University, Turkey
- Prof. (Dr.) Sandro Serpa**, Department of Sociology, University of the Azores, Portugal
- Chew Fong Peng**, University of Malaya, Malaysia
- Demetria Gerold Mkulu**, St. Augustine University of Tanzania
- Dr. A. Heidari**, Faculty of Chemistry, California South University (CSU), Irvine, California, USA
- Dr. Abd El-Aleem Saad Soliman Desoky**, Faculty of Agriculture, Sohag University, Egypt
- Dr. Alexandra D. Solomou**, Agricultural Engineer, Hellenic Agricultural Organization "DEMETER", Institute of Mediterranean and Forest Ecosystems, Terma Alkmanos, Ilisia, 11528, Athens, Greece.
- Dr. Anil Matthew**, Research Supervisor, Former Head of Department of English, Hislop College Nagpur, India
- Dr. Ekrem BÖLÜKBAŞI**, Molecular biology and Biotechnology, Amasya University, Turkey
- Dr. Elechi Felix Aja**, Ebonyi State University, Abakaliki, Nigeria
- Dr. Etim Nse Akpan**, Federal University Wukari, Nigeria
- Dr. Jyoti Patil**, Principal, Renuka Mahavidyalaya, Besa Nagpur, India
- Dr. K. Srujan Raju**, CMR Technical Campus (CMRG), CSI State Student Coordinator, Telangana State, India
- Dr. M. Kannan**, SCSVMV, Kanchipuram, India
- Dr. Mahona Joseph Paschal**, Service-Learning ambassador in Tanzania.
- Dr. Md Mahadhi Hasan**, Assistant Professor, Department of English, Southeast University, Bangladesh.
- Dr. Mehmet Firat Baran**, Associate Prof. , Faculty of Technology, Department of Energy Systems Engineering, Altinsehir, Adiyaman, Turkey
- Dr. Mohammed Y. Suliman**, Northern Technical University, Iraq
- Dr. Neel Kamal Purohit**, S.S. Jain Subodh P.G. College, Rambagh, Jaipur, India
- Dr. Onyemauche Uchenna Chinyere**, Federal University of Technology Owerri Imo State Nigeria
- Dr. P. D. Nimsarkar**, RTM Nagpur University Nagpur, India
- Dr. Parul Mishra**, GD GOENKA University, India
- Dr. Payal Chadha**, University of Maryland University College Europe, Kuwait
- Dr. Raghvendra Singh**, Pranveer Singh Institute of Technology, India
- Dr. Sandhya Lanjewar**, Central Institute of English Hyderabad, India
- Dr. Sunil Kumar Mishra**, Amity School of Liberal Art, India
- José G. Vargas-Hernández**, Núcleo Universitario Los Belenes CUCEA, Zapopan, Jalisco C.P. 45100; México
- Kofand Anwar**, American Stratford University, Virginia
- Mohammed Y. Suliman**, Northern Technical University, Iraq
- Mohd Muntjir**, College of Computers and Information Technology, Taif University, Kingdom of Saudi Arabia
- Monica Aparecida da Rocha Silva**, Universidade de São Paulo, Brazil
- Mr. Sagar Jamle**, Oriental University Indore, India
- Muvunyi Ronaldo**, Taiyuan University of Technology, China
- Nyangono Biyegue Christine Fernande Epse Ayoub Bene**, University of Douala/ enset, Cameroon
- Prof Dr. Noman Omar Sattar**, National Defense University, Islamabad, Pakistan

**Prof. Dr. Eng. Ahmed Kadhim Hussein**, College of Engineering, Department of Mechanical Engineering, Babylon University, Babylon City, HIILA , IRAQ

**Prof. Dr. Flávio de São Pedro Filho**, Coordinator of the GEITEC / UNIR / CNPq, Brazil. Federal University of Rondônia, Brazil

**Prof. Liu Wenxiang**, Hubei University, Wuhan, China

Professor Tamuno-Omi Godwin Dappa, Federal University Wukari, Nigeria

**Sahar Mirzaei**, Horticultural Science Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Mahallat, Iran.

**Samuel dos Santos Junio**, Instituto Federal de Educação, Ciência e Tecnologia de Rondônia - Campus Porto Velho Zona Norte, Brazil

**Sandro Serpa**, University of the Azores, Portugal

**Titus O. Pacho**, Kisii university , Kenya

## Message

I am extremely pleased to share that International Research and Development Center for Publication (IRDCP) is organizing a two days **6th International Conference on Agriculture, Environment and Veterinary Studies(AEVS-2021)** on Apr 15-16, 2021.

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. Elsey  
Convenor AEVS-2021

## Message

I am happy to know that International Research and Development Center for Publication (IRDCP) is organizing a two days *6th International Conference on Agriculture, Environment and Veterinary Studies(AEVS-2021)* on Apr 15-16, 2021. 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)



*INDEX*

---

**Biopestidal management of mite (*Tetranychus urticae* Koch) on vegetable crops**

Sunil Kr. Ghosh

2

---

# Abstract of AEVS-2021

# Biopestidal management of mite (*Tetranychus urticae* Koch) on vegetable crops

Sunil Kr. Ghosh

Department of Agricultural Entomology, B.C.K.V-Agriculture University, Kalyani, West Bengal-741235, India.

\*E-mail: [sg\\_bckv2014@rediffmail.com](mailto:sg_bckv2014@rediffmail.com)

**Abstract**— Red spider mite (*Tetranychus urticae* Koch.) causes heavy damage to different types of vegetable crops like eggplant, cucumber, lady's finger etc. Lady's finger (*Abelmoschus esculentus* L.) is susceptible to mite severely. Peak population of mite (6.18 mites/leaf) was recorded during 23<sup>rd</sup> SMW (end of May) in the pre-kharif crop. Highest population (7.56/leaf) was found on the 42<sup>nd</sup> SMW (first week of October) in the post kharif crop. Sudden fall of population was found in last week of June because of heavy rains. Mite population showed non-significantly positive correlation ( $p=0.05$ ) with temperature, maximum RH where as significantly positive correlation with minimum RH. One microbial toxin, avermectin (Vertimec 1.9 EC) @ 1.0 ml/ L and one botanical insecticide azadirachtin (neemactin 0.15 EC) @ 2.5 ml/L, and one botanical extracts, *Spilanthes paniculata* flower extracted in methanol @ 1.0% and 5.0% and one treatment containing mixture of azadirachtin and floral extract of *Spilanthes* 5% (@2.5 ml and 50 ml/L were evaluated and compared with the ability of Sulphur (Sulfex 80 WP) @ 5g/ L and Fenazaquin (Magister 10EC) @ 2ml/L to control the pest. Fenazaquin treatment resulted in the best suppression of mite population (79.24 % suppression), closely followed by avermectin (76.40 % suppression). Among bio-pesticides, avermectin and combination of neem with *Spilanthes* gave better results recording more than 70 % suppression. Bio-pesticides being safer to human health and environment, could be recommended for organic farming.

**Keywords**— Seasonal fluctuation, bio-pesticides, vegetable IPM, organic farming.

## References

- [1] Bala, S.C., Karmakar, K. and Ghosh, S.K. (2015). Population dynamics of mite , *Aceria tulipae* Keif. on garlic (*Allium sativum* L.) and its management under Bengal basin. *International Journal of Science, Environment and Technology*. **4**: 1365-1372.
- [2] Bala, S.C. and Ghosh, S.K. (2016). Host plant resistance-cum-chemical control approach for the sustainable management of yellow mite. *Journal of Entomological Research* **40**: 373-377.
- [3] Ghosh, S.K. (2019). Distribution of spider mite (*Tetranychus urticae* Koch) on rose plant (*Rosa chinensis* Lin.) and its environmentally sound control using plant extract. *Journal of Entomology and Zoology studies.(JEZS)* **7**(6): 207-210.

- [4] Ghosh, S.K. (2019). Climate impact on red spider mite (*Tetranychus* sp. Koch) infesting eggplant (*Solanum melongena* L.) and their management using plant extracts. *Journal of Entomological Research*, **43** (3): 345-350.
- [5] Ghosh, S.K. and Senapati, S.K.. (2002). Field evaluation of pesticides from different origin against pest complex of brinjal/eggplant under terai region of W. B. *Crop Res.*, **23**(1): 108-115.
- [6] Ghosh, J., Ghosh,S.K., Chatterjee, H. and S.K. Senapati. S.K. (1999) Pest constraints of Okra under terai region of West Bengal. *Indian J. Entomol.* **61** (1): 362-71.
- [7] Ghosh, S.K., Laskar, N. and Senapati, S.K.(2003) Estimation of loss in yield of brinjal due to pest complex under terai region of West Bengal. *Environment and Ecology.* **21**(4):764-769.
- [8] Ghosh, S.K., Laskar, N., Basak,S.N. and senapati, S.K.(2006) Seasonal fluctuation of spider on brinjal and efficacy of pesticides under terai region of West Bengal. *Orissa Journal of Horticulture.***34**(1):86-91.
- [9] Ghosh, S.K., Mahapatra, G. S. S. and Chakraborty, G. (2009). Field efficacy of plant extracts and microbial insecticides against aphid (*Aphis gossypii*) infesting okra (*Abelmoschus esculentus*). *Redia, Itali* XC11: 249-252.
- [10] Ghosh, S.K., Mandal, T., Biswas, S. and Chakraborty, K. (2012). field evaluation of cultivars and bio-efficacy of insecticides against pest complex of ladysfinger (*Abelmoschus esculentus* L.). *Journal of applied Zoological research* **23**(2): 121-128.
- [11] Ghosh S: (2013). Incidence of red spider mite (*Tetranychus urticae*) on okra (*Abelmoschus esculentus* (L.) and their sustainable management. *Current Biotica* **7**: 40-50.
- [12] Ghosh, S.K. (2013). Sustainable management of red spider mite (*Tetranychus* sp.) infesting eggplant (*Solanum melongena* ) at field level. *Uttar Pradesh J. Zool.* **33**(2): 175-180.
- [13] Ghosh, S.K. and Chakraborty, K. (2014). Bio-Efficacy of plant extracts against red spider mite (*Tetranychus* spp. ) infesting brinjal (*Solanum melongena* L.). *Research journal of Agricultural and Environmental Sciences.* 1: 26-31.
- [14] Mandol,T., Ghosh, S. K. and Chakraborty, K. (2016). Seasonal incidence of thrips infesting Som plant leaves (*Machilus bombycina* King.) and their management, *International Journal of Science, Environment and Technology.* **5** (4): 2245-2256.
- [15] Mandol, T. and Ghosh, S.K. (2020). Climate impact on spider mite (*Tetranychus* sp. koch) on som plant leaves (*Machilus bombycina* king) and control using phytochemicals. *Journal of Entomology and Zoology studies.(JEZS)* **8**(5): 559-564.
- [16] Priyadarshini, S., Ghosh, S.K. and Nayak, A.K. (2019). Field screening of different chilli cultivars against important sucking pests of chilli in West Bengal. *Bulletin of Environment, Pharmacology and Life Sciences.(JEZS)* **8**(7): 134-140.