



IRDCP
REMOVING BARRIERS IN THE RESEARCH

2021



Souvenir

7th International Conference on Agriculture, Food Research and Rural Development (AFRRD-2021)

Jun 13-14, 2021

International research & development Center
for publication (IRDCP)

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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.

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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

7th International Conference on Agriculture, Food Research and Rural Development (AFRRD-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 **International Conference on Agriculture, Food Research and Rural Development (AFRRD-2021)** on Jun 13-14, 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.

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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, Food Research and Rural Development (AFRRD-2021)** on Jun 13-14, 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. Kiran
Convenor AFRRD-2021

Message

I am happy to know that International Research and Development Center for Publication (IRDCP) is organizing a two days **International Conference on Agriculture, Food Research and Rural Development (AFRRD-2021)** on Jun 13-14, 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.

Dr. Tilak Arora
Senior Homoeopathic Mediacal officer
Govt. of Rajasthan, India

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Lady bird beetle population on vegetable crops and use of safe pesticides for biodiversity conservation

Sunil Kr. Ghosh

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Abstract of AFRRD-2021

Lady bird beetle population on vegetable crops and use of safe pesticides for biodiversity conservation

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Abstract— Various predators, parasitoides and pathogens cause natural biological control of insect pests of vegetable crops particularly eggplant/brinjal, tomato, cabbage, cauliflower, chilli, potato, lady's finger etc. Among the different predators lady bird beetles play an important role in the natural suppression of destructive insect pests viz., jassid/leaf hopper, aphid, thrips, whitefly, mites etc. *Coccinella sp.*, an important lady bird beetle in the Gangetic plains and under the foothill of the Himalayan range of N-E India was found very active, feeding on different insect pests of eggplant/brinjal and other vegetable crops throughout the year. Highest average population (4.87 *Coccinella*/plant) was recorded in terai region of West Bengal, India during March (11th standard week) when the mean temperature, mean relative humidity and weekly rainfall were 23.8°C, 74.2 % and 8.2 mm respectively. *Coccinella* incidence showed significant positive correlation ($p= 0.05$) with maximum temperature and significant negative correlation with maximum, minimum and mean relative humidity whereas with minimum and mean temperature and rainfall the correlation was negative but non-significant. The control of pests through synthetic pesticides is rather difficult as there is possibility to retain toxic residues. Insecticides of biological origin were relatively less harmful to *Coccinella* than synthetic ones. The pathogens, *Bacillus thuringiensis* Berliner and *Beauveria bassiana* (Bals.) Vuillemin caused significant lower killing of the predator (less than 40 %) whereas the synthetic insecticides, DDVP and malathion caused significantly higher killing (more than 50 %). Botanical and microbial insecticides are bio-pesticides having less or no hazardous effects on bio-agents, human health and the environment, and can be incorporated in sustainable agriculture.

Keywords— Seasonal incidence, predator, biopesticides, Sustainable agriculture, organic farming.

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