

2021

International Conference on Agriculture and Rural Development (ICARD-2021)

Nov 27-28, 2021

www.irdcp.org

10.22161/conf.icard.nov.2021

5th International Conference on Agriculture and Rural Development (ICARD-2021)

Nov 27-28, 2021

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DOI: <u>10.22161/conf.icard.nov.2021</u>

Publisher

IRDCP

Email: irdcp.publication@gmail.com | conference.irdcp@gmail.com Web: https://irdcp.org/

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<u>About Conference</u> International Conference on Agriculture and Rural Development (ICARD-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 and Rural Development (ICARD-2021)" on Nov 27-28, 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Prospective authors from academia as well as industry are invited to submit their abstracts that illustrate original/unpublished works and industrial applications describing advances and significant innovations in the field.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 and Rural Development (ICARD-2021)** on Nov 27-28, 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 ICARD-2021

<u>Message</u>

I am happy to know that International Research and Development Center for Publication (IRDCP) is organizing a two days **International Conference on Agriculture and Rural Development (ICARD-2021)** on Nov 27-28, 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. Praveen Kumar Jain

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Abstract of ICARD-2021

Preparation of plant based formulation and bio-efficacy against cowpea aphid (*Aphis craccivora* Koch.) - Non-chemical pest management

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Abstract— Background: The cowpea (*Vigna unguiculata*), an annual herbaceous food legume is damaged by various insect pests of which cowpea aphid (*Aphis craccivora*) causes damage to the tender leaves of the plant and reduces its yield. Two plant based formulation (prepared in the Chemistry Laboratory) viz. *Polygonum hydropiper* floral parts and Tobacco (*Nicotiana tabacum*) leaf, were used for its environmentally sound management.

Methods: For preparing wettable powder formulation from *Polygonum* and tobacco the different ingredients are required viz. china clay, silica gel, wetting agent, dispersing agent etc. Physico-chemical analysis was done for preparation of accurate Wettable Powder formulation.

Results: Cowpea aphid is very important insect pest to cause damage the tender leaves of the plant. From the overall observations it was revealed that imidacloprid (Confidor 17.8 SL) @ 1.0 ml/3L was found the most effective treatment against aphids giving more than 80 % control followed by tobacco (50 WP) @ 8 g/ L of water (more than 70 % control), fipronil (Regent 5% SC) @ 2.5 ml/L of water and *Polygonum* (50 WP) @ 8 g/ L of water (more than 65 % control both). Tobacco and Polygonum are bio-pesticides; plant based formulation and may be used as alternative of chemical pesticides. The quality parameters of WP (50%) formulation was satisfactory as per the FAO specifications in terms of wet sieved test, wettability, foaming and suspensibility performed on the 0-day and also after 15th day at room temperature, at 65° C and at freezing temperature conditions. imidacloprid and fipronil both are highly toxic synthetic chemical insecticide, so there is every possibility to contaminate vegetables with the toxic chemicals.

Keywords— Bio-pesticides, Botanical formulation, Vegetables, Organic cultivation.

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** (5): 1365-1372.

- [2] Das, K., Biswas, S., Chakraborty,G. and Ghosh, S.K. (2010). Efficacy of insecticides against Iassid (*Amrasca biguttula biguttuka* Ishida) on okra in terai agro-ecology of West Bengal. J. Appl. Zool. Res., 21 (1): 33-35.
- [3] Ghosh, S.K. (2015). Integrated field management of aphid (Myzus persicae Sulz. And Aphis gossypii Glov. Together) on potato (Solanum tuberosum L.) using bio-pesticides International Journal of Science, Environment and Technology. 4 (3): 682-689.
- [4] Ghosh, S.K. (2016) Harmful effect of insecticides against predator, *Coccinella* sp. (Lady bird beetle) on eggplant (*Solanum melongena* L.). *Uttar Pradesh J. Zool.* **36**(1): 17-23.
- [5] Ghosh, S.K. (2017). Seasonal Incidence of aphid (*Aphis gossypii* Glove.) Infesting tomato and their management by using botanical pesticides *International Journal of Advances in Science Engineering and Tecnology*. **5**(3, Spl. Issue-1):14-17.
- [6] Ghosh, S.K. (2018). Phytochemicals-A New Era for Management of Red Spider Mite (*Tetranychus urticae*) on Rose Plant Book Edited by Dr. S.S. Gantait, Book title "Advances in Floriculture and Urban Horticulture" *pp.* 300-304, 2018.
- [7] Ghosh, S.K. (2019) Sustainable Management of aphid (*Aphis gossypii* Glover) infesting brinjal (eggplant), *Solanum melongena* L.) Book Edited by Sachin Tyagi, Book title "Hi-Tech Horticulture, Volume 4: Plant Protection and Stress Management" pp. 77-99, 2018. (New India Publishing Agency, New Delhi ISBN: 978-93-87973-40-4).
- [8] Ghosh, S.K.. (2020). Aphid (*Aphis craccivora* Koch.) Management on Groundnut Crop (*Arachis hypogaea*) by using Bio-pesticides. *Int.J.Curr.Microbiol.App.Sci.* 9(10): 24-34. doi: https://doi.org/10.20546/ijcmas.2020.910.004
- [9] Ghosh, S.K. (2021) Bio-efficacy of plants based formulations for the management of cowpea aphid (*Aphis craccivora* Koch.) *Legume Research-An International Journal*, Online First Publication. DOI:10.18805/LR-4636
- [10]Ghosh, S.K. and Chakraborty, G (2010) Climate change impact in the population of lady bird beetle on vegetable crops and harmful effect of insecticides. Book Edited by Smita Asthana and Elizabeth Margaret, Book title "*climate change-issues and concerns*" pp. 60-64, 2010. (IUP – publication, University Campus, Agartala, Tripura ISBN: 978-81-314-2701-9).
- [11] Ghosh, S.K. and Chakraborty, G. (2012). Integrated field management of *Henosepilachna vigintioctopunctata* (Fabr.) on potato using botanical and microbial pesticides. *Journal of biopesticides*, 5 (supplementary): 151-154.
- [12] Ghosh, S.K.; Chakraborty, K. and Mandal, T. (2013) Bio-Ecology of Predatory Coccinellid Beetle, *Coccinella septempunctata* (Coleoptera: Coccinellidae) and its Dynamics in Rice Field of Terai Region of West Bengal, India. *Internal Journal of Bio-resource and Stress Management* 4 (4): 571-575.
- [13] 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

- [14] Ghosh, S.K., Mandol, T. and Chakraborty, K. (2016). Population fluctuation of aphid (*Aphis craccivora* Koch..) infesting Som plant leaves (*Machilus bombycina* King..) and its management. J. Ent.Res.. 40 (3): 235-241.
- [15] Ghosh, S.K., Mandal, T. and Chakraborty, K. (2013). Efficacy of chemical insecticides and neem oil against white fly (*Bemisia tabaci*) Infesting ladysfinger. *International Journal* of Bio-resource and Stress Management, 4 (2): special 348-351.
- [16] Mandol, T., Ghosh, S.K. and Chakraborty, K. (2016) Seasonal incidence of thrips (*Thrips tabaci*) infesting Som plant leaves (*Machilus bombycina*) and their management. *International Journal of Science, Environment and Technology*. 5 (4): 2245-2256.
- [17] 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.
- [18] Purkait, A., Biswas, S., Saha, S., Hazra, D.K., Roy, K., Biswas, P.K., Ghosh, S.K. and Kole, R.K. (2019). Formulation of plant based insecticides, their bio-efficacy evaluation and chemical characterization. *Crop Protection*. 125: 104907, 1-9.
- [19] Subba, B. and Ghosh, S.K. (2016). population dynamics of lady bird beetle and spiders in relation to weather factors in tomato (lycopersicon esculentum l.). *Life Sciences International Research Journal*. **3**(1): 35-37. ISSN: 2347-8691.
- [20] Thakoor, P., Ghosh, S.K., Nihal, R. and Ramya, Sri N. (2019). Effect of abiotic factors on seasonal incidence and bio-efficacy of some newer insecticides against aphid (*Aphis* gossypii) in tomato. Journal of Entomology and Zoology studies. 7(3): 513-516.
- [21] Thakoor, P., Ghosh, S.K. and Bala, S.C. (2020) Effect of abiotic factors on seasonal incidence and bio-efficacy of some newer insecticides against white fly on tomato crop in West Bengal. *Journal of Entomology and Zoology studies*. 8(3): 267-271.

Effect of abiotic factors on seasonal incidence and bio-efficacy of some newer insecticides against aphid (*Aphis gossypii*) in tomato

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Abstract— An experiment was conducted at District seed farm, Bidhan Chandra Krishi Viswavidyalaya, Kalyani, Nadia, West Bengal to perceive the seasonal incidence and bioefficacy of some newer insecticides against *Aphis gossypii* in tomato. Results from the population dynamics revealed that the aphid incidence started from 48th standard week (2.50/3leaves) with peak population attained by 7th standard week (12.19/3 leaves). Correlation studies revealed that the aphid population had a significant positive correlation with diurnal and maximum temperature, while significant negative correlation with maximum and minimum relative humidity. The Bio-efficacy results indicated that all the newer insecticide were significantly superior over control. Maximum population reduction were observed in the insecticidal treatment Imidacloprid 30.5 SC @ 160ml/ha (88.73%) and Flonicamid 50 WG @ 300g/ha (88.71%), followed by other insecticides like Clothianidin 50 WDG @ 500g/ha (79.51%), Dinethoate 30 EC @ 1000ml/ha (79.84%), Difenthiuron 50 WP @1000g/ha (79.51%), Dinotefuran 20 SG @500g/ha (76.14%) and Spinosad 45 SC @100ml/ha (63.04%) also gave significant population reduction over control.

Keywords— Tomato, aphid, bio-efficacy, population dynamics

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** (5): 1365-1372.
- [2] Das, K., Biswas, S., Chakraborty,G. and Ghosh, S.K. (2010). Efficacy of insecticides against Iassid (*Amrasca biguttula biguttuka* Ishida) on okra in terai agro-ecology of West Bengal. J. Appl. Zool. Res., 21 (1): 33-35.
- [3] Ghosh, S.K. (2015). Integrated field management of aphid (Myzus persicae Sulz. And Aphis gossypii Glov. Together) on potato (Solanum tuberosum L.) using bio-pesticides International Journal of Science, Environment and Technology. 4 (3): 682-689.
- [4] Ghosh, S.K. (2016) Harmful effect of insecticides against predator, *Coccinella* sp. (Lady bird beetle) on eggplant (*Solanum melongena* L.). *Uttar Pradesh J. Zool.* **36**(1): 17-23.

- [5] Ghosh, S.K. (2017). Seasonal Incidence of aphid (*Aphis gossypii* Glove.) Infesting tomato and their management by using botanical pesticides *International Journal of Advances in Science Engineering and Tecnology*. **5**(3, Spl. Issue-1):14-17.
- [6] Ghosh, S.K. (2018). Phytochemicals-A New Era for Management of Red Spider Mite (*Tetranychus urticae*) on Rose Plant Book Edited by Dr. S.S. Gantait, Book title "Advances in Floriculture and Urban Horticulture" pp. 300-304, 2018.
- [7] Ghosh, S.K. (2019) Sustainable Management of aphid (*Aphis gossypii* Glover) infesting brinjal (eggplant), *Solanum melongena* L.) Book Edited by Sachin Tyagi, Book title "Hi-Tech Horticulture, Volume 4: Plant Protection and Stress Management" pp. 77-99, 2018. (New India Publishing Agency, New Delhi ISBN: 978-93-87973-40-4).
- [8] Ghosh, S.K.. (2020). Aphid (*Aphis craccivora* Koch.) Management on Groundnut Crop (*Arachis hypogaea*) by using Bio-pesticides. *Int.J.Curr.Microbiol.App.Sci.* 9(10): 24-34. doi: <u>https://doi.org/10.20546/ijcmas.2020.910.004</u>
- [9] Ghosh, S.K. (2021) Bio-efficacy of plants based formulations for the management of cowpea aphid (*Aphis craccivora* Koch.) *Legume Research-An International Journal*, Online First Publication. DOI:10.18805/LR-4636
- [10]Ghosh, S.K. and Chakraborty, G (2010) Climate change impact in the population of lady bird beetle on vegetable crops and harmful effect of insecticides. Book Edited by Smita Asthana and Elizabeth Margaret, Book title "*climate change-issues and concerns*" pp. 60-64, 2010. (IUP publication, University Campus, Agartala, Tripura ISBN: 978-81-314-2701-9).
- [11] Ghosh, S.K. and Chakraborty, G. (2012). Integrated field management of *Henosepilachna vigintioctopunctata* (Fabr.) on potato using botanical and microbial pesticides. *Journal of biopesticides*, 5 (supplementary): 151-154.
- [12] Ghosh, S.K.; Chakraborty, K. and Mandal, T. (2013) Bio-Ecology of Predatory Coccinellid Beetle, Coccinella septempunctata (Coleoptera: Coccinellidae) and its Dynamics in Rice Field of Terai Region of West Bengal, India. Internal Journal of Bioresource and Stress Management 4 (4): 571-575.
- [13] 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
- [14] Ghosh, S.K., Mandol, T. and Chakraborty, K. (2016). Population fluctuation of aphid (*Aphis craccivora* Koch..) infesting Som plant leaves (*Machilus bombycina* King..) and its management. J. Ent.Res.. 40 (3): 235-241.
- [15] Ghosh, S.K., Mandal, T. and Chakraborty, K. (2013). Efficacy of chemical insecticides and neem oil against white fly (*Bemisia tabaci*) Infesting ladysfinger. *International Journal* of Bio-resource and Stress Management, 4 (2): special 348-351.

- [16] Mandol, T., Ghosh, S.K. and Chakraborty, K. (2016) Seasonal incidence of thrips (*Thrips tabaci*) infesting Som plant leaves (*Machilus bombycina*) and their management. *International Journal of Science, Environment and Technology*. 5 (4): 2245-2256.
- [17] 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.
- [18] Purkait, A., Biswas, S., Saha, S., Hazra, D.K., Roy, K., Biswas, P.K., Ghosh, S.K. and Kole, R.K. (2019). Formulation of plant based insecticides, their bio-efficacy evaluation and chemical characterization. *Crop Protection*. 125: 104907, 1-9.
- [19] Subba, B. and Ghosh, S.K. (2016). population dynamics of lady bird beetle and spiders in relation to weather factors in tomato (lycopersicon esculentum l.). *Life Sciences International Research Journal*. **3**(1): 35-37. ISSN: 2347-8691.
- [20] Thakoor, P., Ghosh, S.K., Nihal, R. and Ramya, Sri N. (2019). Effect of abiotic factors on seasonal incidence and bio-efficacy of some newer insecticides against aphid (*Aphis* gossypii) in tomato. Journal of Entomology and Zoology studies. 7(3): 513-516.
- [21] Thakoor, P., Ghosh, S.K. and Bala, S.C. (2020) Effect of abiotic factors on seasonal incidence and bio-efficacy of some newer insecticides against white fly on tomato crop in West Bengal. *Journal of Entomology and Zoology studies*. 8(3): 267-271.

GST Changes Under Finance Bill 2021

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Abstract— Ever since its implementation on 1st July 2017, the GST law has constantly been evolving based on the experiences of 'GST in Action'. The pain points as identified and expressed by the taxpayers has been paid heed to by the government,, and to the extent possible, the same has been accommodated in the changes. At the same time, the areas of litigation have been fine tuned by way of removing the ambiguity in law. Taxability of club/associations/ housing societies etc has been reiterated by expressly including the related provisions in the ambit of taxable events. It has been put right into the design of GST that credit to the buyer gets available only when the corresponding tax is paid by the seller. A long pending demand of the trade has been accepted by way of prescribing that interest will accrue only on the net liability of the taxpayer i.e. only on cash part of the payment of duty made by him. At the same time, legal provisions have been made stricter in regard to the e-way bill offenses where now penalty has been doubled; and even the advance payments required for filing appeal in such cases has been raised to 25% from the earlier rate 10% of the tax in dispute. Provisions for Provisional attachment of property of the defaulting taxpayers has further been widened. Tightening the recovery provisions, it has now been provided that invoices issued by the taxpayer when uploaded in his return namely GSTR-1, if not paid the tax thereon, will be directly recovered without even issuing any show cause notice. Changes have been made empowering the Commissioner to call for any information for any person in the course of official discharge of his functions. Supplies to SEZ will now be tax-free only if it has been permitted to be used for the authorized activity of the SEZ unit, and not otherwise. Further, from a future date to be notified, tax on export can be paid and refund claimed only in the specified cases of supplies and not uniformly on all supplies by all exporters as is the law at present.