

Personal details



Dr. Vinod Kumar Padala

Scientist (SS)

Discipline: Agricultural Entomology

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Research Interest

Insect Ecology, Insect taxonomy, Integrated Pest Management.

Research Highlights

Makhana aphid distribution, monitoring and sampling optimization

Semiochemical-based approaches for sustainable pest management

Biological control through herbivore-induced volatile-mediated predator attraction

Host plant resistance against brown planthopper infestations

Membership/fellowship

Fellow of Entomological Society of India

Life member – Life Member of the Plant Protection Association of India

Research publication/patent/technology

Padala, V.K., Rout, R.K., Sahoo, A., Vishwakarma, A. and Tarate, S.B. 2026. Satellite-derived spectral signature and spatial mapping of makhana using Sentinel-2 for aquatic crop monitoring. *Remote Sensing Letters*, 17(10):1200-1215.

Padala, V.K., Sinha, T., Tyagi, S., Ramya, N. and Narayana, S. 2025. DNA barcoding and genetic diversity studies of Water lily aphid, *Rhopalosiphum nymphaeae* from India. *Journal of Environmental Biology*, 46(1):87-94.

Padala, V.K., Ramya, N., Kumar, M., Rajna, S., Rajashekhar, M., Venkatesh, Y.N., Raut, S.M., Chander, S., S., Singh, I.S. and Monobrullah, M., 2023. Spatial distribution and optimum sample size for monitoring of water lily aphid *Rhopalosiphum nymphaeae* (L.) in Makhana *Euryale ferox* Salisb. *International Journal of Tropical Insect Science*, 43(6):2167-2177.

Padala, V.K., Ramya, N., Rajashekhar, M., Keerthi, M.C., Kumar, M., Raut, S.M., Singh, I.S., and Monobrullah, M. 2022. Chlorpyrifos Root dip treatment effect on population of Singhara beetle, *Galerucella birmanica* Jacoby, natural enemies and yield of Water Chestnut. *National Academy Science Letters*, 45(5):379-382.

Padala, V.K., Kumar, P., Ramya, N. and Jayanthi, P.D. 2023. Aromatic plant odours of *Anethum graveolens* and *Coriandrum sativum* repel whitefly, *Bemisia tabaci* in tomato. *Current Science*, 124(2): 231-238.

- Padala, V.K.**, Kolla, S., Ramya, N. and Bairi, S. 2024. Multivariate morphometric analysis of white grub, *Holotrichia serrata* (Coleoptera: Scarabaeidae) populations from India. *International Journal of Tropical Insect Science*, 44(2):723-735.
- Padala, V.K.**, Venkatesh, Y.N., Rajna, S., Ramya, N. and Chander, S. 2024. Incidence of pest and natural enemies in direct seeded rice and transplanted rice. *National Academy Science Letters*, pp.1-4.
- Padala, V.K.**, Rajna, S., Venkatesh, Y. and Chander, S. 2024. Interactive effect of transplanting time and crop phenology on incidence of brown planthopper and spider population in rice (*Oryza sativa*). *Indian Journal of Agricultural Sciences*, 94(2):140-144.
- Padala, V.K.**, Ramya, N., Sagar, D., Kumar, H., Sharma, M. and Subramanian, S. 2024. Host Nutrition *vis-a-vis* fatty acid profile and reproductive biology of Fall Armyworm, *Spodoptera frugiperda* (JE Smith). *National Academy Science Letters*, pp.1-5.
- Raut, S., Singh, J., Nair, S., Singh, I.S., Padala, V.K., Kumar, M., Ahirwal, S.K. and Tarate, S.B., 2025. Impact of periphyton on makhana (*Euryale ferox* Salisbury) cum fish culture: a study in North Bihar, India. *Aquatic Living Resources*, 38, p.6.
- Raut, S., Sarma, K., Singh, I.S., Singh, J., **Padala, V.K.**, Ahirwal, S.K., Kumar, T., Kumar, R., Jana, B.R. and Bhatt, B.P., 2025. Performance and sustainability of the makhana (*Euryale ferox* Salisbury) cum fish culture system in India. *Indian Journal of Fisheries*, 72(2): 84-93.
- Rajna, S., Vishwakarma, A., **Padala, V.K.**, Raghavendra, K.V. and Chander, D.S. 2025. Development and validation of predictive regression model for Brown planthopper population in rice. *Journal of Environmental Biology*, 46(5):694-700.
- Rajashekhar, M., Rajashekar, B., Reddy, T.P., Manikyanahalli Chandrashekara, K., Vanisree, K., Ramakrishna, K., Sunitha, V., Shaila, O., Sathyanarayana, E., Shahanaz and Reddy, S.S., Shankar A, Jahan A, **Padala, V.K.** and Reddy, M.J.M. 2024. Evaluation of farmers friendly IPM modules for the management of fall armyworm, *Spodoptera frugiperda* (JE Smith) in maize in the hot semiarid region of India. *Scientific Reports*, 14(1), p.7118.
- Ramya, N., **Padala, V.K.**, Sagar, D., Rupali, J.S., Kumar, H., Reshma, R., Yadav, P. and Subramanian, S., 2024. Decoding the copulation and courtship patterns of an invasive pest, *Spodoptera frugiperda* (JE Smith, 1797) from India. *Current Science*, 126(9):1152-1158.
- Rupali, J.S., Ramya, N., Sagar, D., **Padala, V.K.**, Madhuri, E.V. and Subramanian, S. 2023. Reproductive behaviour in different aged adults of fall armyworm, *Spodoptera frugiperda* (JE Smith). *Current Science*, 125(3): 309-316.
- Chandrashekara, K.M., Suroshe, S.S., Singh, P.K., Chander, S. and **Padala, V.K.** 2024. Life table and demographic parameters of mustard aphid, *Lipaphis erysimi* (Kaltenbach) (Hemiptera: Aphididae) on five brassicaceous host crops. *Current Science*, 126(1):77-84.

Srinivasa, N., Chander, S. and **Padala, V.K.** 2021. Evaluation of the effect of elevated co 2 on bioefficacy of Buprofezin insecticide against brown plant hopper, *Nilaparvata Lugens* (stal). *Journal of Experimental Biology and Agricultural Science*, 9(1): 5-11.