ICAR-CIPHET Licenses Innovative Day-Night Solar Insect Trap, Pioneering a New Era in Chemical-Free Pest Control

In a technology development for sustainable agriculture, the ICAR-Central Institute of Post-Harvest Engineering and Technology (ICAR-CIPHET), Ludhiana, has licensed a novel "Day-Night Solar Insect Trap" that promises to revolutionize pest management while minimizing the use of harmful chemical pesticides. The licensing agreement was awarded to Mr. P. Shekhar Pandey, an entrepreneur representing M/s Parashar Agrotech Bio Pvt. Ltd., Varanasi, marking a significant milestone in technology transfer and public-private partnership in agricultural innovation.

Traditional pest control methods rely heavily on chemical pesticides, which not only pose serious health risks to farmers and consumers but also negatively affect the environment and beneficial insect populations such as pollinators. Additionally, the rising cost of chemical inputs adds to the economic burden on farmers. In response to these pressing challenges, a research team at ICAR-CIPHET has developed an advanced solar-powered insect trap designed to function efficiently both during the day and at night. This innovative device operates using solar energy, eliminating the dependency on grid power and significantly reducing operational costs. Its unique design enables it to attract and trap a wide range of insect pests across various cropping systems and storage. The 24/7 operational capacity of the trap makes it a viable and eco-friendly alternative to chemical pesticides. Farmers using this technology can expect reduced crop damage, lower input costs, and improved yields, contributing to a more sustainable and profitable farming ecosystem.

The development of the solar insect trap was led by Dr. Guru P.N. and Dr. Sumit B. Urhe of ICAR-CIPHET. Recognizing its commercial and ecological potential, Mr. P. Shekhar Pandey of Parashar Agrotech Bio Pvt. Ltd. expressed keen interest in licensing the technology for wider dissemination among farmers, especially in regions prone to high pest pressure. The licensing process was facilitated by Dr. Ranjeet Singh, Head of Technology Transfer and Officer-in-Charge of the Intellectual Technology Management Unit (ITMU) at ICAR-CIPHET. Dr. Nachiket Kotwaliwale, Director of ICAR-CIPHET, handed over the official licensing agreement and certificate to Mr. Pandey. Dr. Kotwaliwale reaffirmed the institute’s commitment to supporting entrepreneurs and agri-tech startups in their efforts to scale up innovations. “ICAR-CIPHET will extend all possible support to ensure successful commercialization and adoption of this technology,” he noted.

With this licensing, ICAR-CIPHET continues to lead in providing practical, farmer-friendly technologies that not only address the immediate needs of Indian agriculture but also align with long-term goals of environmental conservation and food security.


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