

ICAR-NBAIR celebrates National Science Day, Organizes Insect and Insect Products Exhibition as part of 'Make in India' initiative from 27 - 28 February, 2016.

The ICAR - National Bureau of Agricultural Insect Resources (ICAR - NBAIR) celebrated the National Science Day (28.02.2016) to mark the discovery of the Raman Effect by C. V. Raman in 1928 for which he was awarded the Nobel Prize in Physics in 1930. The Bureau showcased ecologically friendly pest management techniques developed at the Bureau. An exhibition of live terrestrial and aquatic insects was arranged for students. The event was for two days from 27 - 28 February, 2016. Dr. Abraham Verghese, Director, NBAIR personally coordinated the whole arrangement.

With the theme for this year being 'Make in India: S&T Driven Innovations'; ICAR-NBAIR which has been relentlessly working on pest management techniques that work in concert with nature – organized an exhibition depicting indigenously developed, ecologically non - disruptive, sustainable technologies that will enable our farmers adopt agricultural practices without upsetting the intricate processes of nature. Farmers, students and entrepreneurs were able to see the techniques for harnessing the services of insects and microbes to combat other insects that damage our crops that will aid in safe production of food and fibre in requisite quantities. These technologies will enable young entrepreneurs of our country to manufacture products in India for the management of pests in the service of our farming community. This will also help generate much needed employment in our farm sector.

More than 800 students participated in the event. Several farmers also visited the institute and showed keen interest in the eco-friendly technologies and free samples were distributed. Several entrepreneurs attended and enrolled for technology uptake with the institute's ITMU.

A lecture on 'Chemoecological approaches in pest management' was delivered by Dr. Subaharan, The talk was attended by Students from Mt. Carmel College, SRFs and staff from NBAIR. The principle and working of Gas Chromatography and Mass Spectrometer was demonstrated to the participants.

The celebration saw wide coverage by media (selected clippings attached) and Doordarshan in both English and Kannada.

National Science Day was also celebrated at the research farm of ICAR-NBAIR, Yelahanka Campus. A team of four teachers along with Principal Ms. Sudha and 50 children from Government Lower Primary School, Attur Layout participated in the event. An awareness programme about activities of the Bureau was carried out by Dr. Mahesh S. Yandigeri, Senior Scientist along with Dr. Birendra Kumar Chaubey, Asst. Chief Technical Officer. Children were fascinated about various types of live insects which included pollinators like honey bees, and butterflies, pests like *Spodoptera*, cutworms and grass hoppers and predators like lady bird beetles etc. Pollinator garden and beehives were center of attraction.

Insectarium has interesting trivia for kids

TIMES NEWS NETWORK

Bengaluru: Would you like to taste a chocolate-dipped insect? Did you know that the British soldiers' uniforms were dyed in red colour extracted from an insect that feeds of cacti? Pieces of history and trivia about the insect world attracted about 100 schoolchildren to the insectarium at the Veterinary College campus near Hebbal on Saturday.

Held to celebrate National Science Day (February 27), the exhibition essentially aimed to showcase insects that can protect crops from being damaged by other insects and insect products, as a part of Make in India initiative by the Indian Council of Agricultural Research — National Bureau of Agricultural Insect Resources (ICAR-NBAIR).

Students from Daffodils English School, UAS School, Kendriya Vidyalaya, Hebbal and Mount Carmel thronged the insectarium to take a close look at moths and bottles filled with beetles. The enthusiastic bunch not only clicked pictures of the insects but also posed for selfies with them, especially the butterflies.

Said Aisha Hussain, an eight grader from UAS School: "I have always loved butterflies. As a child, I'd run behind them in parks and gar-



TINY HELPERS: Schoolchildren at the exhibition, which aimed to showcase insects that can protect crops from being damaged by other insects

dens and if I managed to catch one, I'd preserve it for as long as I could. Gradually, I understood their life cycle and their importance in the food chain and I stopped catching them."

Aisha's brother Mafaz Hussian, studying in

Spectrum International School, kept asking for the chocolate-dipped insect. "I don't mind eating them as long as I get the taste of chocolate," said Mafaz.

Bharathi S, another student from UAS School said, "It's great to know about these insects and their importance in agriculture and production of medicines and dyes. The professors have told us many interesting facts that show how beautiful these creatures are."

Among the kids were also some farmers keenly learning about the importance of these insects and how they can use some of the predatory types to secure their crops from the ones that damage their harvest.

Said Prashant Mohanraj, head of the department of insect biosystematics: "Insects like the Indian stingless bee can be seen everywhere but is harmless to humans. However, the honey it produces has medicinal value and anti-cancer properties. The value of this honey is four times more than the one produced by honey bees." Prashant also showed some insects that people feed on. There are 1,900 such species that are eaten historically by Asians. "Some of these insects have higher protein value than fish, chicken or eggs," said Prashant.

The exhibition is on till Sunday.



Dr. Abraham Verghese explaining the exhibits

Handicrafts to manure, insects find use in myriad products

Ramzauva Chhachhuak

BENGALURU: Handicrafts made of insect resin, organic manure produced from the insect waste or insect based biopesticides. Sounds interesting, isn't it?

Although thousands of insect species have been discovered till now, yet not many know about their uses that could span entire cottage industries, according to Dr Abraham Verghese, director, National Bureau of Agricultural Insect Resources (NBAIR), which is under the administrative control of the Indian Council for Agricultural Research (ICAR) at Hebbal in Bengaluru.

He was speaking to *Deccan Herald* on the sidelines of the 'Insect and Insects Product Exhibition' organised by ICAR-NBAIR here on Saturday.

The protaetia aurichalcea, for example, is a species of beetle that eats decaying plants and its waste, and can be used as manure in agriculture. The lac insect produces a resin that can be used for making various handicrafts. "In places like



Students take a look at items on display at the 'Insect and Insects Product Exhibition' organised by ICAR-NBAIR in the City on Saturday. DH PHOTO

Jharkhand the products made of lac is exported. There are a number of niche markets for the products made of it," said Dr Verghese. In various parts of the world a number of insects are eaten and made into packaged snacks. "Who said startups are only from the software industry and engineers," he added.

Further, the make-up of a species of worms called 'wax-

worms' is very similar to that of mammals and they could be used, instead of mammals, in testing. Then there is the practice of rearing 'stick insects' that is popular in countries like Thailand. Insects like predaceous diving beetle and 'water striders' can also be used in aquariums.

Insect based biopesticides
While the production and mar-

ket for chemical fertilisers is huge, organic pest control mechanism using insects is something that the institute has been promoting. The trichogramma chilonis, a species of wasp, can be used by farmers as pest control in warm regions that grow sugarcane, groundnuts, cotton and other crops. The wasp parasitizes the eggs of common pests such as sugarcane borers, cotton bollworms and kills them with no risk to the crop. Another insect species, the common green lacewing (chrysoperla zastrowi sillemi) is a good biological control agent for various pests.

Sumanth Shivalingaiah, an engineer and consultant with Qualcomm, who wants to start an organic farming business, said, "I want to get into full-time organic farming and such bio-pest control mechanisms are definitely important to such plans." Dr Verghese said that anyone interested will be helped by the institute in terms of know-how support and training. People can also log on to the institute's website: <http://www.nbaire.res.in/>.
DH News Service





Farmers visiting the exhibition stalls









Farmers visiting the photo gallery















Students of Mount Carmel College with the Director



Students enjoying refreshments



Science day at Yelahanka campus



