

# COTTON Innovate



Weekly Newsletter from Central Institute for Cotton Research, Nagpur

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## National Science Day Celebration

Under the aegis of the innovative club, a talk on endosymbionts and their role on leaf hopper management was presented by Dr. Sandhya Kranthi, Head, Crop Protection Division on March 7, 2015. Drawing analogies from the study on *Bemisia tabaci*, where pyrosequencing revealed the presence of *Delftia* as the dominant endosymbiont she drew out the possibilities of depleting the dominant endosymbiont in the leaf hopper for its management. That the endosymbiont identified in leaf hopper is also reported as a diazotroph and found in the haemolymph, these endosymbionts play a major role in supplying essential amino acids almost exclusively to the insect. Depleting the insect of their endosymbiont may result in its management.



## Research Round UP

Emergence of *Apanteles* sp from dead Pink bollworm *Pectinophora gossypiella* (Saunders) on Bollgard II cotton hybrids in Bharuch, Gujarat



*Apanteles* sp was recorded in India by Muesebeck (1956), Sekhon & Varma, 1983 and Singh and Sindhu 1982 and in Pakistan by Mohammad and Mohammad in 1972 on pink bollworm. In the present studies green bolls collected from RCH2 BG-II and Ajeet 155 BG-II hybrids in Waghvan and katasayan villages, Hansot Taluka of Bharuch, Gujarat during first week of November, 2014 harboured parasitized pink bollworm. The bolls were brought to the laboratory and dissected for determining pink bollworm larval incidence and per cent locule damage. The larvae of pink bollworm collected from green bolls were reared on artificial diet and after 6th day dead pink bollworms were noticed. The mortality of pink bollworm larvae ranged from 21.18 to 60.86%. The larval parasitoid *Apanteles* sp emergence was recorded from the dead pink bollworm larvae. After *Bracon lefroyi* this is the second larval parasitoid being reported from field population of pink bollworm collected, since 2013. The parasitoid *Apanteles* sp that emerged from pink bollworm collected from BG-II cotton hybrids did not show detectable Cry toxin levels when tested using ELISA.

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