

## Profile of Scientist



1. **Name of the Scientist:** Dr.Arun Baitha
2. **Personal biodata:**
  - a) **Designation:** Sr.Scientist
  - b) **Joining date in ICAR:** 20.12.1997
  - c) **Discipline and specialization:** Agril. Entomology, Biological control in sugarcane
  - d) **Training / advance exposure in the area of work:**
    - Attended “Advances in sugarcane Production Technology” from 10.05.2000 to 30.05.2000 at IISR, Lucknow.
    - Attended “Biological control of crop pests in different cropping systems” from 11.11.2003 to 09.01.2003 at PDBC, Bangalore.
    - Attended” Advances in Agricultural Acarology” from 08.10.2010 to 28.10.2010 at UAS,Bangalore
    - To study the latest technology in the field of biological pest control in sugarcane from 07.03.2005 to 21.03.2005 at EPICA, MATANZAS, Cuba.
  - e) **Contribution to the scientific advancement:**
    - Developed technology for mass multiplication of *Trichogramma chilonis* as perfected on green trichocards and pupal parasitoid, *Tetrastichus howardi*.
    - It has found that three strains of *Trichogramma chilonis* (from egg masses of top borer, internode borer and early shoot borer) showed high degree of genetic variability and wild strains were intrinsically superior to laboratory strain.
    - The larvae of top borer (II,III and IV brood) were parasitized by *Isotima javensis*, *Rhaconotus scirpophagae* and *Stenobracon nicevillei*
    - Developed temperature tolerant strain of *Trichogramma chilonis* and *T.japonicum*.
    - Conserve release of larval parasitoid *Isotima javensis*, *Rhaconotus scirpophagae* and *Stenobracon nicevillei* reduced the incidence of top borer (III brood).
3. **Future Planning of research:**
  - Habitat management in sugarcane agro-ecosystem for the containment of insect-pests.
  - Biodiversity in sugarcane adapted strain of *Trichogramma chilonis* and selection of the most efficient strain of *Trichogramma* for borer management

- Interaction of larval parasitoids of sugarcane top borer and development of cheap rearing technique.

#### **4. Publications:**

1. Baitha, A. and Sinha, O.K. 2002. Response of *Trichogramma chilonis* Ishii to different colours of trichocard. *Indian J. Sugarcane Technol.* **17**(1&2): 64-67.
2. Baitha, A. and Varma, A. 2003. Growth rate of sugarcane adapted strain of *Trichogramma chilonis* Ishii (Hymenoptera: Trichogrammatidae). *J. Biol. Control*, **17** (2): 175-178.
3. Baitha, A., Jalali, S.K., Rabindra, R.J. Venkatesan, T. and Rao, N.S. 2003. Parasitising efficiency of egg parasitoid, *Trichogramma japonicum* Ashmead at four temperature regimes. *Ann. Pl. Protec. Sci.* **11** (2): 185-188.
4. Baitha, A., Jalali, S.K., Rabindra, R.J. Venkatesan, T. Rao, N.S and Lalitha, Y. 2004. Effect of parasitoid-host ratio on some biological attributes of *Tetrastichus howardi* (Olliff) (Hymenoptera: Eulophidae), *Entomon.* **29** (2): 125-128.
5. Baitha, A. 2005. Growth rate differences of wild vs. laboratory-reared sugarcane adapted strains of *Trichogramma chilonis* Ishii (Hymenoptera: Trichogrammatidae). *Sugar Tech.* **7** (2 &3): 53-56.

#### **5. Other relevant activities of Scientist:**

- Transfer the technology of biocontrol of insect-pests in sugarcane crop.
- Multiplication of hosts and parasitoids through out year.
- Supply of nucleus culture of *Trichogramma* to sugar mills and SAU.
- Acted as a member in several Committees of IISR.