

**Dr. M. Balavenkatasubbaiah, M.Sc., Ph.D.**  
**Scientist-D**



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| <b>Email:</b>  | mbvsubbaiah@yahoo.com  |
| <b>Qualifications:</b>                               | M. Sc., Ph.D.  |
| <b>Specialization:</b>                               | M.Sc., - Zoology - Animal Physiology<br>Ph.D., - Zoology - Toxicology  |
| <b>Ph.D. thesis title:</b>                           | Studies on the effects of some selected heavy metals on hydro mineral balance and energy metabolism in freshwater apple snail, <i>Pila globosa</i> (Swainson)  |
| <b>Date of Joining in the Central Silk Board</b>     | 01-03-1983   |
| <b>Research Experience in CSB and Specialization</b> | Senior Research Assistant - 1983 to 1991<br>(Silkworm Pathology & one year in Sericulture Training)<br>Senior Research Officer - 1991 to 2006 (Silkworm Pathology)<br>Scientist – C - 2006 to 2010 (Silkworm Pathology)<br>Scientist – D - 2010 to till date (Silkworm Pathology)  |
| <b>Publications:</b>                                 | Total: <b>171</b><br>Research Papers : 90 (National -63; International-27)<br>Popular Articles : 47<br>Seminars : 10<br>Books/Book Chapters : 18<br>Technical manuals for VCD : 03<br>Pamphlets : 03   |
| <b>Top five publications:</b>                        | 1. Studies on transfer of Disease Resistant Genes Non-susceptible to Densonucleosis Virus Type1 (BmDNV1) into Productive silkworm breeds. <i>Sericologia</i> . 2006, <b>46(4)</b> : 383-391.<br>2. A Practical Technology for Diagnosis and Management of Diseases in Silkworm Rearing. <i>Int. J. Indust. Entomol.</i> , 2002: <b>4(2)</b> : 169-173.<br>3. Amruth, an eco and user friendly botanical based formulation for the suppression of Grasserie and Flacherie diseases in the silkworm, <i>Bombyx mori</i> L. <i>Conference on Leveraging Innovations &amp; Inventions Enhancing Competitiveness</i> . 13-14 <sup>th</sup> October, 2008. NRDC, New Delhi. Proceedings pp. 115-121.<br>4. Haemocyte counts in different breeds of silkworm, <i>Bombyx mori</i> L. and their changes during the progressive infection of BmNPV. <i>Indian J. Seric.</i> 2001, <b>40(2)</b> : 158-162.<br>5. Chlorine dioxide, a new disinfectant in sericulture. <i>Indian J. Seric.</i> , 1999, <b>38(2)</b> : 125-130. |
| <b>Teaching Experi.</b>                              | 33 years (30 years in Silkworm Pathology & 03 years in Zoology)  |

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| <b>Research Guidance:</b>        | Recognized as Research Guide by University of Mysore, Mysore for Ph.D. and M.Sc., degrees<br>Ph.D., guided & degree awarded : 01<br>M.Sc., (Microbiology) dissertations guided : 02<br>M.Sc., (Seric. Tech) dissertations guided : 07<br>Diploma in Sericulture dissertations guided : 02   |
| <b>Trainings undergone:</b>      | 1. Trained at Zhejiang Agricultural University, Hangzhou, China on Silkworm Disease Control.<br>2. Trained at National Institute of Sericultural and Entomological Sciences, Tsukuba, Japan, on Silkworm Disease Control.<br>3. Trained at National Academy of Agricultural Research Management, Hyderabad, A.P. on Research Management.  |
| <b>Awards / Honors received:</b> | <ol style="list-style-type: none"> <li>1. Received NRDC National <b>Technology Day Award</b> for the meritorious invention of "<b>Vijetha</b>, a silkworm body and rearing seat disinfectant" on 11th May, 1999 at New Delhi.</li> <li>2. Honoured in Reshme Krishi Mela held at CSR&amp;TI., Mysore on 16th November, 2004 for the contribution towards the Development of the <b>Technologies for Prevention and Control of silkworm diseases</b>.</li> <li>3. Received <b>Best Research Paper award</b> to "A Practical Technology for Diagnosis and Management of Diseases in Silkworm Rearing" presented in National Seminar on Sericulture Technology: An Appraisal, 6-7th June, 2000 at CSR&amp;TI., Mysore.</li> <li>4. Received <b>Best Research Paper award</b> to "A report on the prevalence of silkworm diseases and estimated crop loss" presented in National Seminar on "Strategies for Sericulture Research and Development", 16-18th November, 2000 at CSR&amp;TI., Mysore.</li> <li>5. Awarded certificate for developing <b>Ankush</b> - an eco friendly silkworm body disinfectant in National Training and Seminar on Technology awareness for women sericulturists (16-17th March 2007) at CSR&amp;T, Mysore.</li> <li>6. Awarded certificate in Appreciation of significant contribution for development of <b>Amruth</b>, an eco and user friendly botanical based formulation for the control of grasserie and flacherie diseases in silkworm in Reshme Krishi Mela held at Chitradurga, Karnataka on 3<sup>rd</sup> January, 2009.</li> <li>7. Awarded certificate in Appreciation of significant contribution for development of <b>Asthra</b>, a New Spray Disinfectant for Sericulture during the workshop on Innovative Technologies for Sustainable Sericulture held at CSRTI., Mysore on 28<sup>th</sup> January, 2010.</li> <li>8. Awarded certificate in Appreciation of significant contribution in promoting Bivoltine Sericulture under the <b>Cluster Promotion Programme</b> during XI Plan period implemented jointly by the Central Silk Board, Bengaluru with the Department of Sericulture in the state of Karnataka during the Sericulture Farmers' workshop held at Bagalkot on 4<sup>th</sup> January, 2013.</li> <li>9. Awarded certificate in Appreciation of significant contribution in Pre-authorization field trials of <b>L14 x CSR2</b>: A new polyvoltine x bivoltine hybrid with superior fibre qualities on 23<sup>rd</sup> March, 2013.</li> </ol> |

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| <p><b>Patents awarded/filed</b></p>                            | <ol style="list-style-type: none"> <li>1. A process for the preparation of <b>Vijetha</b> - A silkworm body and rearing seat disinfectant to prevent silkworm diseases. <b>Patent No. 186 852, dtd., 28-9-98. Patent awarded on 5-7-2002.</b></li> <li>2. A process for the preparation of <b>Reshamkeet Oushadh</b> - A silkworm body and rearing seat disinfectant for prevention of nuclear polyhedrosis and muscardine (1997) - Patent application filed to the Govt. of India.</li> <li>3. <b>Ankush</b>, an eco-friendly process of silkworm body and rearing seat disinfection (2003) – Patent application filed to the Govt. of India.</li> <li>4. <b>Amruth</b>, an eco-friendly process for management of Grasserie and Flacherie in silkworm, <i>Bombyx mori</i> L. (2003) – Patent application filed to the Govt. of India.</li> </ol>                               |
| <p><b>Technologies developed:</b></p>                          | <ol style="list-style-type: none"> <li>1. Prevention of Grasserie and Muscardine using Reshamkeet Oushadh.</li> <li>2. Integrated technology for management of diseases in silkworm.</li> <li>3. Disinfection of rearing house and appliances and maintenance hygiene using Chlorine dioxide.</li> <li>4. Mass mother moth examination in commercial seed production centers.</li> <li>5. Silkworm body and rearing seat disinfection using Vijetha.</li> <li>6. Management of Muscardine disease using Vijetha Supplement.</li> <li>7. Determination of health status of early instar silkworms.</li> <li>8. Silkworm body and rearing seat disinfection using Ankush.</li> <li>9. Control/suppression of Grasserie and Flacherie diseases in silkworm using Amruth.</li> <li>10. Disinfection of rearing house and appliances and maintenance hygiene using Asthra.</li> </ol> |
| <p><b>Development of disease resistant/tolerant breeds</b></p> | <ol style="list-style-type: none"> <li>1. CSR50 × CSR51- CHAMARAJA - Bivoltine hybrid</li> <li>2. (CSR52 × CSR50) × (CSR51 × CSR53) - Double hybrid</li> <li>3. CSR21DR × CSR28DR- Bivoltine hybrid</li> <li>4. NDV6 × CSR2 - Multi × bivoltine hybrid</li> </ol> <p>All the hybrids are under Race Authorization trials.</p>  |