

## BIODATA



1. Name K.N. MAHESH
2. Designation Scientist-D
3. Date of Birth 29.05.1966
4. Address Silk Technical Service Centre  
CSTRI, Central Silk Board, Model  
Grainage Complex, Near Bus  
Stand, Sidlaghatta- 562105,  
Karnataka
5. E mail Maheshkn9@gmail.com
6. Telephone (Off) 08158-295013
7. Mobile 9880087584

### 2. Educational Qualification:

Highest Degree	Year	University	Country	Subject	Class
B.Tech (Textiles)	1988	Mysore University	India	Textile technology	Distinction
M.Tech (Textiles)	2000	Bangalore University	India	Textile technology	First Class

### 3. Experience:

Sl.No	Organisation / Institute	Capacity / Designation	Duration
1.	Cocoon Market, CSTRI, Dehradun.	Senior Research Assistant	October 1990 - 1993
2.	CSTRI, Bangalore.	Senior Research Asst.	Nov1993 - May 2000.
3.	CSTRI, Bangalore.	Senior Research Officer.	Jun 2000 – August 2004
4.	RSTC, CSTRI, Sidlaghatta	Scientist D	Sep 2004 - July 2018
5.	CSTRI / STL, Bangalore	Scientist-D	July 2018 – July 2020

6.	STSC, Sidlaghatta	Scientist-D	July 2020 onwards
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**4. Areas of Research Interest:** Silk Reeling.

**5. Ongoing Research Projects / Exploratory Works:**

- I. Slit Buttons: Impact Assessment with reference to Cleanness defects (TOT Project).( Co PI)
- II. Design and Development of Low Cost Pupae Drying Machine. (CI)

**6 . Associated with the following Research Project(s):**

- I. All India Co-ordinated Experiments (1993 -1995) & Race Authorisation Programme Up to 2004.
- II. ST RLG 001. Influence of process parameters on the reeling performance and quality of raw silk produced from multi-bivoltine cocoons (1991 – 1997).
- III. ST RLG 002. JICA assisted Bivoltine Sericulture Technology Development Project (1991-1997).
- IV. ST RLG 003. Up-gradation of equipments / technology for quality improvement (1997 – 1999).
- V. ST RLG 004. Process control gadgets in silk reeling (1997-2000).
- VI. ST RLG 005. JICA assisted Promotion and Popularization of Practical Bivoltine Sericulture in India.
- VII. Fabrication of Conveyor Cooking Machine and Standardization of Process Parameters.
- VIII. Development of web silk reeling machine: ST RLG 006. Development of dupion reeling technology for producing superior grade dupion silk (1999-2002).
- IX. Exploratory Work: Critical study on causes of winding breaks to identify major factor or group of factors affecting the winding quality of raw silk reeled on multiend reeling machine.
- X. Techno-economics of Cottage Basin & Multiend Silk Reeling (2008-2009).
- XI. CYR-7035. Evolving Process Norms for Silk Reeling on Cottage Basin, Multiend and Domestic Basin Reeling Units (April 2007- April -2009).
- XII. CYR-7036. Investigation Into Optimum Physical And Structural Properties Required For Making Silk Zari Yarn- Comparison Of Cottage Basin (Domestic Basin/ Back Reeling) V/S Multiend Silk. (June 2007 - June 2009).
- XIII. CYR 7043. Studies on Efficient Tapping of Solar Heating Systems in Reeling activities. (April 2009 to March 2012)
- XIV. Comparative Techno-economics of multiend reeling and multiend reeling cum twisting units (2012).
- XV. Development of energy efficient re-reeling machine to reduce fuel consumption in a multiend silk reeling unit (Sep 2012 to Aug 2014).
- XVI. CYR 7063. Finance to the mulberry silk reeling sector – A study on flow, needs, gaps and way forward (Dec '13 - Nov '14).

- XVII. CYR 7082. A study on the price behaviour of cocoons & raw silk and its impact on the silk reeling sector. (May 2016 to Nov-2017).
- XVIII. CYR07004SI. Techno-economics of Automatic Silk Reeling (July -2018 to June 2019).

**7. No. of Publications: National / International:**

- A. Books: - **03**  
B. Research Papers: **36**

**8. List Of Publications Of Resarch Papers In National And International Journals**

- a. Subhas V.Naik, Sangappa N.Shillin, G.Hariraj, **K.N. Mahesh**, Subrata Roy, T.H.Somashekar (2003) "Reeling Technology Package for Quality dupion silk" Indian Silk, Vol.41, No.10, Feb, pp-23-26.
- b. Hariraj.G., Subhas V.Naik, **Mahesh.K.N**, Sangappa N.Shillin, Somashekar.T.H.(2003) "CSTRI panel winder – on line testing facility" Indian Silk, Vol.42, No.3, July, pp – 23-24.
- c. Hariraj.G, Subhas V.Naik, **Mahesh.K.N.**, Sangappa N.Shillin, Somashekar.T.H.(2003) "Vacuum permeation before cooking improves reelability of cocoons" Indian Silk, Vol.42, No.5, Sept, pp 20-22.
- d. Hariraj. G. Subhas. V. Naik. Mahesh. K. N. Sangappa. N. Shillin. Somashekar. T. H. (2004) "Studies on reeling performance of long stored multi-bivoltine cocoons using vacuum permeation pretreatment before cooking" Asian Text. J, Vol. 13, No. 4, April, pp. 65-69.
- e. Hariraj. G. Roy. S. Mahesh. K. N. Subhas. V. Naik. Sangappa. N. Shillin. Somashekar. T. H. (2004) "Influence of pan and conveyor cooking process on reeling performance and quality characteristics of raw silk", J. Silk. Sci. Tech. Japan. Vol.13, Dec. pp.9-14.
- f. Hariraj G, Patil B.G., Subhas V. Naik, **Mahesh K.N.** and Somashekar T.H. (2004), "Influence of partial drying process on reeling performance and quality of raw silk of multi-bivoltine cocoons", Bulletin of Sericultural Research, Bangladesh, Vol.11, June, 39-44.
- g. Hariraj G., Subhas V.Naik, **Mahesh K.N.**, Sangappa N.Shillin and Somashekar T.H. (2005) "Studies on pretreatment of bivoltine cocoons: Influence of vacuum permeation treatments before cooking on water

absorption and reeling performance of long stored bivoltine cocoons”, *Sericologia*, Vol.45, No.1, 83-73.

- h. Hariraj G. Naik S.V., **Mahesh K.N.**, Sangappa N.Shillin, Roy S and Somashekar T.H. (2005) “CSTRI conveyor cooking machine”, *Indian Silk* Vol.44, No.6, Oct., 15-18.
- i. Subhas V. Naik, T. H. Somashekar, G. Hariraj, Subrata Roy and **K. N. Mahesh**, (2008) “Influence of CSTRI denier control mechanism on quality of raw silk” has been published in *Indian Journal of Sericulture* , Vol. 47, No.1, 49-53.
- j. Aswath Reddy, **K.N. Mahesh**, S.T.Venu and Subrata Roy “Silk Zari Making: Process and perspectives” *Indian Silk*, Vol - 47, No.12 (April 09), pp: 24-26.
- k. Aswath Reddy and **K.N. Mahesh**, (2009) “ Distribution of reeling process parameters and performance in different reeling systems” has been published in *Man Made Textiles in India*, (6), pp:203.
- l. Aswath Reddy, **K.N. Mahesh**, S.T.Venu (2010) “Review on influence of water quality on reeling performance and quality of raw silk” has been published in *Sericologia-50* (3) PP - 379-387.
- m. C.R. Nagaraj, **K.N. Mahesh**, Sreenivasa and Arindam Basu (2012) “Constraint analysis in silk reeling sector”, *Journal of Sericulture & Technology*, Vol.3, (1 & 2), pp 69-72.
- n. C.R. Nagaraj, **K.N. Mahesh**, Subhas V. Naik, B.G. Patil, B. Nanje Gowda and Arindam Basu (2013) “Comparative techno-economics of Multi-end Reeling and Multi-end reeling cum twisting”, *Journal of Sericulture & Technology*, Vol.4, (1 & 2), pp 35-38.
- o. Vijay Kumar.P.Kathari, **K.N. Mahesh** and Arindam Basu (2013) “Energy efficient silk reeling process using solar water heating system and Ushmashoshak unit in multiend silk reeling unit” has been published in *sericologia-53* (3 &4) PP – 219- 224.
- p. C.R. Nagaraj, **K.N. Mahesh**, Subhas. V. Naik, B. Nanje Gowda, B.G. Patil and M.K. Ghosh (2015) “Analysis of working capital of multiend reeling and multiend reeling cum twisting units”, *Sericologia*, 55(3), 189-194.

- q. C.R. Nagaraj, Subhas V. Naik, M.G. Mahesh, **K.N. Mahesh**, S.B. Murgod, A.K. Pal and Surinder Bhat (2017) "Credit flow to the silk reeling sector – An in depth analysis", Indian J. Seric., 2015, 54 (1,2), 64-70.
- r. G.Hariraj, I.David Raja, K.N.Mahesh and Subhas.V.Naik (2020) "Implementation of six sigma methodologies in multiend and domestic basin reeling units for the improvements in quality of raw silk".Sericologia, 60 (1&2), 46 – 54.

***PAPERS PRESENTED AT WORK SHOPS, NATIONAL AND INTERNATIONAL CONFERENCES***

1. G. Hariraj, Subhas V. Naik, **K.N. Mahesh**, Sangappa N. Shillin and T.H. Somashekar, "Quality linked pricing for cocoons", Paper presented at the National Conference on Strategies for Sericulture Research and Development, at CSR&TI, Mysore, 16-18 November 2000.
2. Hariraj G, **K. N. Mahesh**, Sangappa. N. Shillin, Subhas V. Naik, S. Roy, B.V. Vasumathi and T. H. Somashekar, "CSTRI web raw silk – A new concept in silk reeling", Paper presented at the National Conference on Tropical Sericulture for Global Competitiveness, at CSR&TI Mysore, 5 to 7th November 2003.
3. G. Hariraj, Subhas V. Naik, **K. N. Mahesh**, Sangappa. N. Shillin, S. Roy and T. H. Somashekar, "CSTRI conveyor cooking machine for organized silk filatures", Paper presented at the National Conference on Tropical Sericulture for Global Competitiveness, at CSR&TI, Mysore, 5 – 7th November 2003.
4. G. Hariraj, Subhas V. Naik, **K. N. Mahesh**, Sangappa. N. Shillin and T. H. Somashekar, "Improvement in reeling performance of poor reelable and long stored cocoons using vacuum permeation pretreatment before cooking", Paper presented at the National Conference on Tropical Sericulture for Global Competitiveness, at CSR&TI, Mysore, 5 – 7th November 2003.
5. Subhas V. Naik, Sangappa N. Shillin G. Hariraj, **K.N. Mahesh**, Subrata Roy and T.H.Somashekar, "CSTRI dupion silk reeling technology package for production of superior grade dupion silk", Paper presented at the National

Conference on Tropical Sericulture for Global Competitiveness, at CSR&TI, Mysore, 5 – 7th November 2003.

6. Sangappa. N. Shillin, **K. N. Mahesh** and Subrata Roy (2008) “Studies On Correlation Between Winding Breaks And Size Deviation Of Raw Silk ” has been orally presented during the 21<sup>st</sup> National Convention of Textile Engineers and National Seminar on “International quality standards in textile and apparel industries and their implementation” held at Bangalore on 21<sup>st</sup> & 22<sup>nd</sup> February-2008.
7. Suitability of raw silk reeled on domestic basin and multiend basin for zari making Aswatha reddy1, **K.N. Mahesh2** , G.Thimma reddy 3 - Paper presented in “24th National Convention Of Textile Engineers, Bangalore” .
8. Shillin Sangappa, Subrata Roy, B.G. Patil and **K.N.Mahesh**:, (2008) “A study of reason for breaks occurring during winding process of Indian raw silk” International Sericulture Commission ’s Congress, Athens, Greece (3rd - 6th of November). PP186-191
9. C.R. Nagaraj, **K. N. Mahesh** and Sreenivasa (2011) Impact of subsidy on the economics of multiend silk reeling, Abst of Golden Jubilee National conference on sericulture Innovations: Before and beyond, 28<sup>th</sup> & 29<sup>th</sup> January 2011, Mysore, pp 138.
- 10.**K.N. Mahesh**, C.R. Nagaraj, Sreenivasa and Arindam Basu (2011) Economics of multiend silk reeling, 24<sup>th</sup> National Conference of Textile Engineers, 20<sup>th</sup> August 2011, Bangalore.
11. Suitability of raw silk reeled on domestic basin and multiend basin for zari making Aswatha reddy1, **K.N. Mahesh2**, G.Thimma reddy 3 - Paper presented in “24th National Convention Of Textile Engineers, Bangalore”
12. C.R. Nagaraj, **K. N. Mahesh**, Sreenivasa and Arindam Basu (2011) Impact analysis of subsidy on multiend silk reeling, International Conference – Advances in Textiles, Machinery, Non woven and Technical Textiles, ATNT 2011, 15<sup>th</sup> – 17<sup>th</sup> Dec 2011, Coimbatore.
- 13.C.R. Nagaraj, **K. N. Mahesh**, Sreenivasa and Arindam Basu (2011) Constraints analysis of the silk reeling sector, 22<sup>nd</sup> ISC Congress, 14<sup>th</sup> – 18<sup>th</sup> Dec 2011, Changmai, Thailand.(The paper has been accepted).

14. R. Nagaraj, Subhas V Naik, B.G. Patil, **K.N. Mahesh** B. Nanje Gowda and Arindam Basu (2013) “Comparative Techno-Economics of Multiend Reeling and Multiend Reeling Cum Twisting” National Conference – Recent Advances In Modern Biology and Sericulture for Women Empowerment and Rural Development, 24<sup>th</sup> – 26<sup>th</sup> October, 2013, KSSRDI, Bengaluru.
15. R. Nagaraj, **K.N. Mahesh**, Subhas V Naik, B.G. Patil, B. Nanje Gowda and Arindam Basu (2014) “A study on the working capital of multiend reeling and multiend reeling cum twisting units” National Conference on “Sericulture for Livelihood Security” to be held from 29<sup>th</sup> to 31<sup>th</sup> Jan. 2014 College of Sericulture, UAS, Chintamani.
16. C.R. Nagaraj, **K.N. Mahesh**, Subhas V. Naik, B. Nanje Gowda, B.G. Patil and M.K. Ghosh (2014), Analysis of working capital of multiend reeling and multiend reeling cum twisting, 23<sup>rd</sup> International Conference on Sericulture and Silk Industry of ISC held in Bangalore, 24<sup>th</sup> – 27<sup>th</sup> Nov 2014.
17. C.R. Nagaraj, Subhas V. Naik, M.G. Mahesh, **K.N. Mahesh**, S.B. Murgod, A.K. Pal and Surinder Bhat (2016), A study on the flow of credit to the silk reeling sector, National seminar on “Trends for advancement of sericulture” organized by DoS & Sri Krishnadevaraya University, Anantapuramu, 21<sup>st</sup> – 22<sup>nd</sup> Jan 2016.
18. Studies on “short term and long term variations in multibivoltine raw silk denier vis – a vis cocoon filament denier” for poster presentation under section PCT on sericulture & silk industry to be held during 19<sup>th</sup> – 22<sup>nd</sup> November 2019 at Tsukuba, Japan.

### **List of books published:**

1. **“Manual on bivoltine silk reeling Technology 2003”**, Edited by Dr. T. H. Somashekar, Director, CSTRI and DR.K. Kawakami, JICA team leader, Published by Dr. H. Yanagawa, Chief Advisor, Project for strengthening the extension system for Bivoltine sericulture in India, Japan International Cooperation Agency, Mysore, India. Pages 1-122. (1000 Copies printed during 2002, 1000 copies printed during 2003).
2. **“Operational manual for reelers on bivoltine silk reeling technology 2003”**, Edited by DR.T. H. Somashekar, Director, CSTRI and Dr. K. Kawakami, JICA team leader, Published by Dr.H. Yanagawa, Chief Advisor, Project for strengthening the extension system for Bivoltine sericulture in India, Japan International Co-operation Agency, Mysore, India. (In English, Tamil, Hindi, Kannada and Telugu), Pages 1-28, 31, 28, 30, 28. (1000 Copies in each language printed 5 Books during 2003, 1000 Copies printed in English, Kannada during 2002, 1000 Copies printed in English, Kannada during 1998, 1000 Copies printed in English, Tamil during 1996).
3. **“Seri business manual A users’ guide – Industry sector”**, by Somashekar. T. H. Khader. K.M.A. Hariraj. G. Vasumathi. B.V. Jagannathan. K. Hippargi. S. A. Diwakar. Y. Bhat. Jameela Khatoon. **Mahesh. K. N.** Subhas. V. Naik. Nagaraj. C. R. Benakappa. S. Hubli. Ravindra. S. Badiger. Menon. K.S. Priyaranjan. Rudranna Gowda. Prakash. B. Prabhakar Gupta. C. B. Kshama Giridhar. (2003) Edited by ADITI, Published by Member secretary, Central Silk Board, Bangalore.