

BIODATA

- 1 Name : Dr. K. Velayudhan
- 2 Designation : Scientist – D (Retd)
3. Specialisation : ERICULTURE
: Ph.D. in ERICULTURE
- 4 Year of joining Board's Service : October 1990
- 5 Place Posting/address : ESSPC/Eri P2 Farm, Hosur,
Tamil Nadu.
- 6 His/her contact Phone & email.ID : 09788432439,
velayudhancsb@gmail.com
- 7.Length of Service : 29.6 Years of Service Out of which 14
Years of Service in ERICULTURE
8. Length of Service in ERICULTURE : 14 years of Service in Ericulture Field
Field :

Contd - 2

- 2 Nominee's Name : K.Velayudhan
- 3 Designation : Scientist-D
- 4 Year of joining Board's Service : October 1990
- 5 Place Posting/address : ESSPC/Eri P2 Farm, Hosur,
Tamil Nadu.
- 6 His/her contact Phone & email.ID : 09788432439,
velayudhancsb@gmail.com

#	Parameter	Remarks																																																
1	Details of Publications (National, International, Books, Book Chapters, Technology, Brochures etc.). Furnish list of best five papers published indicating citation index.	<i>Reported in the following pages</i>																																																
2	Technologies patented	<i>Reported in the following pages</i>																																																
3	Technology developed & commercialized	<i>Reported in the following pages</i>																																																
4	Significant innovation/ cutting edge technology that change silk scenario or impact of technology.	<i>Reported in the following pages</i>																																																
5	Contribution to Organizational improvement	<i>Achieved the target and ranked All India 1st.</i>																																																
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		<i>Appreciation letter of Member Secretary enclosed separately.</i>																																																
6	Details of trainings attended	<ol style="list-style-type: none"> 1 Intensive Bivoltine Silkworm Rearing Training three time, 2. training in Rural developenmtprogramme from NIRD Hyderabad, 3. Training in RTI FROM CENTRAL Office Bangloore, 4. Training in Fujiwara test for Pebrine Spore detection. (SSTL, Kodathi). 5. Hindi Typing in computer. CSGRC, Hosur. 																																																

7	Details of Awards/Medals/Recognitions received during the last five years.	Reported in the following pages Copy of the comments from our Member Secretary enclosed separately.
8	Membership in Scientific societies/organizations, if any	-----
9	Details of place of posting indicate working in remote area/outside the home state	First appointment was in Rajouri, Jammu & Kashmir state , At present in ESSPC/Eri P2 Farm, Hosur under MSSO, Guwahati, Assam.
10	Overall length of service	2 Years
11	APAR rating (Eligibility rating out to be 8 out of 10 or average of 8 for the last 5 years)	8.45
12	Vigilance clearance (Whether involved in any disciplinary case during his/her service career & its present status/verdict etc.)	N.A.
13	Pen picture by the nominating authority. (indicating Personal details, his/her skill sets special attributes, behavior significant specific contributions for which the office/official is being nominated for the award) 100 words max.	
14	Other achievements/ contributions or special initiatives so far for increasing CSB visibility & achieving organizational goals/targets as mentioned category-wise.	
15	Overall rating (in scale 1 to 10)	

B. Criteria for seed (including BSFs & NSSO, HQs)

1. Publications:

(Research Papers (No) – National & International

RESEARCH PAPERS PUBLISHED:

1. Velayudhan, K., Balachandran, N., Radhakrishnan, S., Singh, B.K. and Jayaprakash, P. 2014. Comparative studies on the rearing and grainage performance of Eri silk worm *Samia ricini* (DONOVAN) on two different host plants in Krishnagiri District. National Conference on Sericulture for Livelihood Security. Organized by University of Agricultural Sciences, Bangalore and College of Sericulture, Chinthamani, Karnataka, India, Jan 29-31 2014. pp. 125-126.

2. Velayudhan, K., Masilamani, S., Balachandran, N., Radhakrishnan, S. and Jayaprakash, P. 2014. Biodiversity in Eri silkworm *Samiaricini* and its conservation. Third Indian Biodiversity Congress (IBC 2014). Organized by School of Public Health, SRM University, Chennai, India, Dec 18-20, pp. 63.
3. Velayudhan, K., Masilamani, S., Balachandran, N., Radhakrishnan, S., Singh, B.K. and Jayaprakash, P. 2014. Eri culture a promising revenue generating avocation for the castor plant (*Ricinuscommunis*)cultivating areas of South India. The 23rd International Congress on Sericulture & silk Industry. Organized by International Sericultural Commission, Bangalore, India, Nov 24-27, Bangalore, India, pp. 95-96.
4. Velayudhan, K., Masilamani, S., Balachandran, N., Radhakrishnan, S.,Muthulaxmi M; Bitupan Das and Singh, B.K. Studies on the Efficacy of Biological effect of two different host plants viz; *Rcicnuscommunis* and *Manihotutilissimain* Eri silkworm *Samiaricini*(DONOVAN).2nd International Conference on Environment and Ecology ICEE 2016, BharathiarUniversity, Coimbatore 7th ,8th ,9th March 2016 Coimbatore. India pp. 281
5. Velayudhan, K., Masilamani, S., EVALUATION OF ERI SILKWORM (*SAMIA RICINI* (DONOVAN) GENOTYPES USING GGE BILOT TECHNIQUES IN *Sericologia* 56(2): 117 – 128, 2016 – ISSN 0250 – 3980 ISC Journal pp.

iBooks and Book Chapters

Imparted training in Ericulture for the two women trainees whom Central Office Bangalore recommended. For their training purpose,picturized Ericulture advanced rearing technology books were prepared and distributed.

ii.Technology Manuals

Technology manual chartsprepared and used for Extension communication activities.

iii. Technology Bulletins / Brochers

Three models of technology brochures prepared and used for farmers Extension communication Programme and the same is distributed among the farmers for improving their knowledge in Ericulture.

*Brochures were printed and distributed in **local language Tamil also.***

ivTechnology Patented.

*Innovated, DFLs packing Technology practiced in ESSPC Hosur and this has been widely accepted by the DOSs of different North and North Eastern States. The DOSs are asking /demanding Eri DFLs f **Exclusively** from ESSPC Hosur only.*

Innovated DFL Packing technology not Patened

1. Technology Developed & Commercialized

- a. *Mechanization in cultural operation for castor plantations. Green manuring in the garden, also usage of Biofertiliser to reduce the application of chemical fertilizer by 50%. VAM application and spraying of micro nutrients on the foliage.*

Disinfection with 5% and 2% bleaching powder solution or usage of chlorine dioxide solutions for the disinfection of rearing houses of ASRs before and after the rearing. Usage of botanical extracts and vegetable oilcakes for pest control .Usage of good bed disinfectant, authorized by Central Silk Board.



2. Awards / Medals / Recognition

Two times received best oral presentation awards.
Comments from our Member Secretary enclosed Separately

3. Membership of international and National Societies.

Nil

3. Contribution in Quality Seed Production (Egg Recovery, Disease freeness, performance of the seed

Early the demand for Eri dfls is increasing and our production also increased. In 2010 - 2011 fiscal year our target was to produce 60,000 Eri DFLs and we produced and distributed 62000 Eri DFLs. At present during the year 2015 – 2016 the production has increased to 2,53,000 Eri DFLs. This increase is because of the quality of DFLs and Disease freeness in the DFLs

year	2011-12	2012-13	2013-14	2014-15	2015-16
Target :	60000	90000	100000	115000	175000
Achiv:	61222	131575	140000	230716	253000
% of Achmnt :	102%	142%	140%	200%	145%

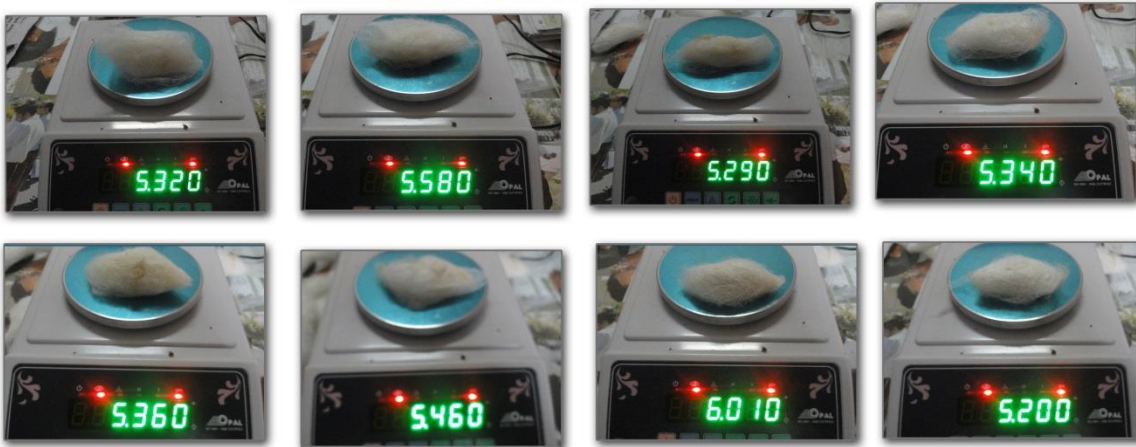
4. Seed Cocoon Generation, Cocoon utilization etc.,

Since the establishment of Eri P2 BSF Hosur, we produced quality cocoons through farm rearing and through ASRs. Even though the norms for seed production is, 5:1 our farm ratio is 3:1 and in the case of ASRs the ratio is 4:1 instead of 5:1.

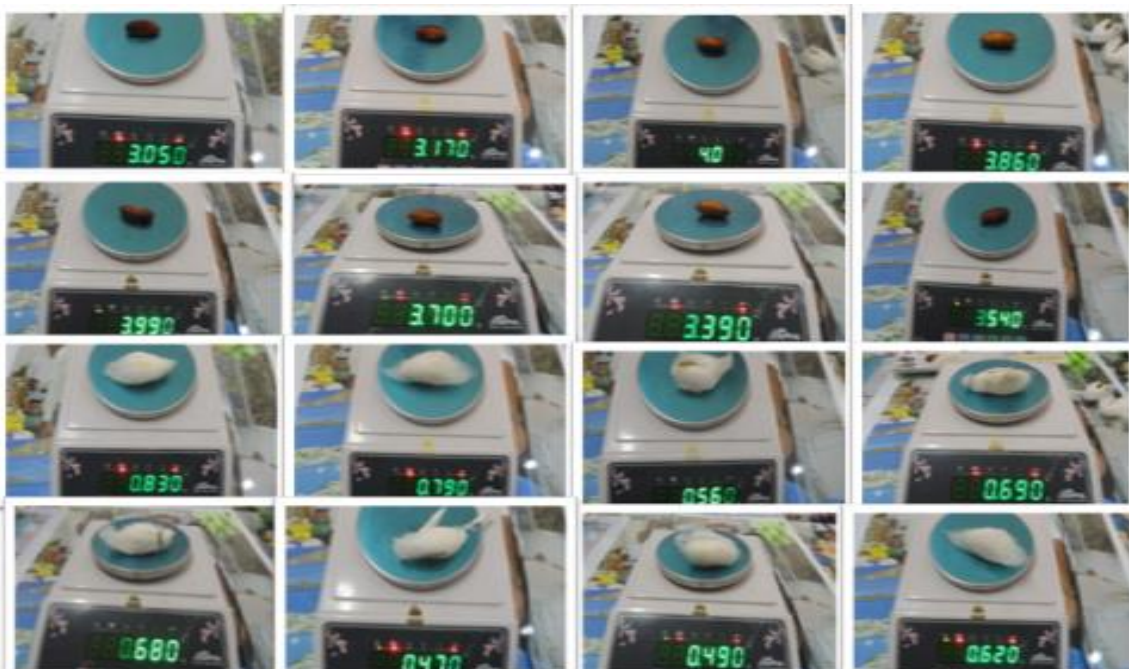
SINGLE LARVAL WEIGHT



SINGLE COCOON WEIGHT

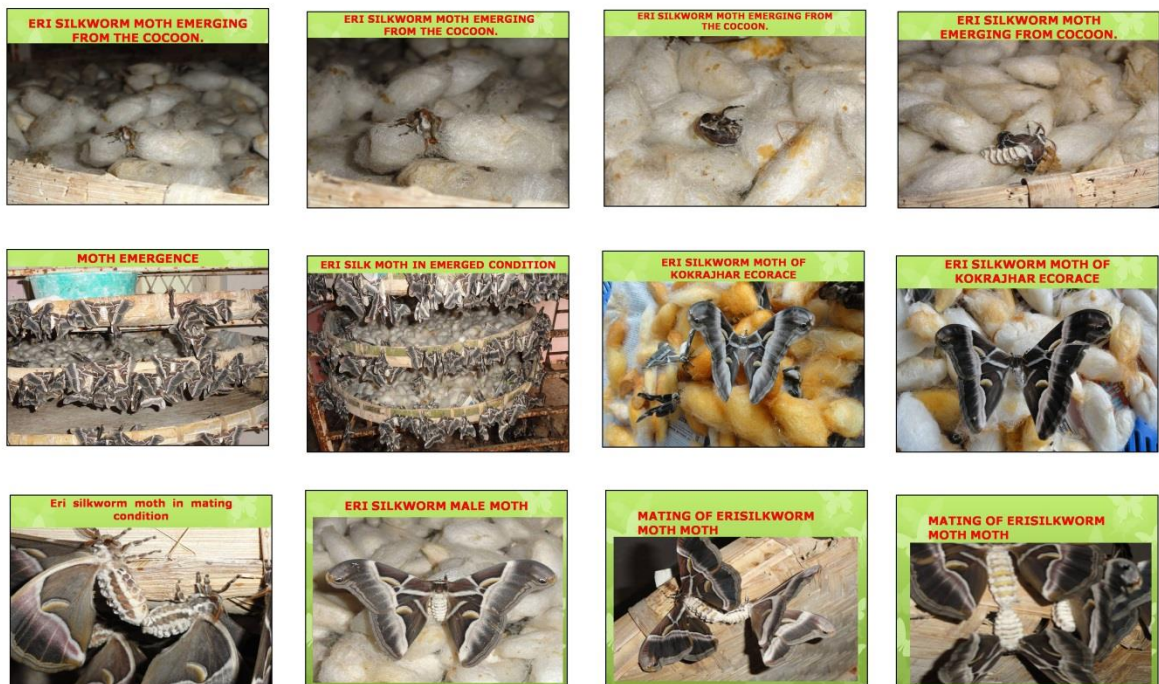


SINGLE PUPAL WEIGHT & SINGLE SHELL WEIGHT



5. .Perceptible improvement in Quality / Quantity and productivity improvement

in Seed Production units/ BSFs.



Conducting of farm rearing inhygienic condition by systematic disinfection of rearing house and rearing equipment's with good quality bleaching powder of 30% chlorine content. Due to rearing in hygienic condition and periodical crop inspection, there were no any major crop loss and we got an average yield of **67.300 kgms./100DFLs**. This achievement is due to periodical crop inspection and making the **ASRs** to conduct the rearing in hygienic condition.

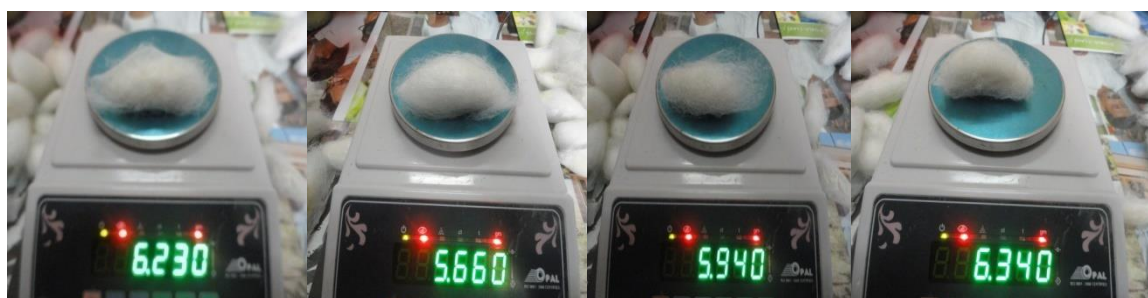
1. The production Eri DFLs showed **escalating tendency**.
2. Even though Ericulture is not a state subject in Tamil Nadu, the Farmers of Tamil Nadu voluntarily coming forward for taking up Ericulture.
3. Equipped with all infra-structure to supply Eri DFLs as per the requirement of the NGOs and DOSs of different states, through ESSPC Hosur.
4. In the farm rearing and grain age operation the cocoon DFL ratio was **2.5:1** and in the case of farmers rearing and commercial grain age operation the Cocoon DFL ratio was **4 : 1 against the target 5:1**
5. 95% of the total production of Eri Dfls produced were supplied to Nrth and North Eastern States.

5. Significant Innovation / Cutting edge technology that changed Seed cocoon / Seed Production scenario.



1. Mechanization in cultural operation for castor plantations. Green manuring in the garden, also usage of Biofertiliser to reduce the application of chemical fertilizer by 50%. VAM application and spraying of micro nutrients on the foliage.

2. *Disinfection with 5% bleaching powder* solution or usage of chlorine dioxide solutions. Usage of botanical extracts and vegetable oil cakes for pest control. Usage of good bed disinfectants. authorized by Central Silk Board.



7. Any other highlight of special S&T content in the work:



- 1.If the worms were fed with better quality leaf it would result in good quality cocoons which weighed up to **5gms to - 6gms.**(As per the norms the average weight of a single Eri cocoon is 2.85gms).For the C2 breed silkworm rearing we got cocoon heavy cocoons which weighed more than 6 gms.the norms for For DFLproduction the norms n cocoon DFLratio is 5:1 But we are producingDF;in the ratio 3:1.
- 2.In the grainage operation the DFL recovery was **110gms to 130gms from one kilogramsof Eri Seed Cocoon**, whereas the norms for this process is we should get**70 DFLs too to 80DFLS of Eri DFLs from one Kgms of seed cocoon.**
- 3.To achieve the target of **ESSPC/ERI P2 BSF Hosur**We planned in such a way that when the demand is more for Eri DFLs, my center generated more cocoons through the ASRs, and in the slack season the generation of cocoon was minimized.



4. Much care has been taken to distribute only disease free P1 laying to the ASRs. Then only we can ensure good cocoon both in quality and quantity. The pebrinised Eri silkworm may produce cocoon but it is very difficult to generate quality DFLs for the next generation. Hence I took utmost care in distribution of disease free layings to the farmers. The farmers were thoroughly educated to follow the package of practices in the maintenance of castor plantations, usage of Biofertiliser, VAM application, spraying of micronutrient on leaf, usage of botanical extracts for pest control. If chemical pesticides are used for pest control, the farmers were warned to keep the safety period and after that only the leaf may be fed to the Eri silk worms. Further we are taking the new farmers to the ongoing farmers to get more about Ericulture and to get satisfied themselves. Further video shows were screened about Ericulture for cluster farmers under extension communication Programme.



6.

7.

6. The generated layings were subjected to surface disinfection with 2% formalin solution and dried well in room temperature. Packed properly in cotton bags with 50 DFLs in each bag. These bags with DFLs are hanged freely in the carton /plastic boxes ensuring

proper ventilation. Much care is taken to avoid piling of the bags with DFLs one over the other. Since the eggshell of the Eri DFLs are highly calcareous piling of bags one over the other may generate heat which cause the death of the embryo, finally hatching performance may be so poor. To avoid this bags are hanged freely in the carton/plastic boxes/baskets with proper ventilation.

8. Most of our DFLs are sent to North and Northeastern destination by air cargo. Here myself or only experienced technical staffs will be deputed to take the DFLs to the Airport. While booking the consignment it is ensured that the consignment is not subjected for X- ray checkup and it is verified physically by the security personnel. Because of these procedures, **not even a single complaint were** lodged about the hatching performance of the DFLs. Communication facility is very much used by informing the consignee after booking the consignment, through phone call, through SMS, and through fax message. This procedure facilitates the consignee to take delivery of the consignment immediately after its arrival at the destination. This procedure is helping us in avoiding the unnecessary delay in the destination. Transportation of DFLs was effected only in the early hours of the day or late in the evening. .

INNOVATED ERI DFL PACKING TECHNOGY



9. Contribution to Organizational improvement.

*It is for the first time an Eri Basic Seed Farm was established in South India in Hosur within the stipulated time.. Within 5 acres of land, 3 acres of castor plantation, the primary food of Eri Silkworm **Samiaricini**, one administrative building ,one Basic Seed grainage , two rearing houses with 100 DFLs capacity, pump house, campus road, access road from the main road,**aminiEri complex in South India**. Next plan is request the competent authority for Establishing a an Eri Training Center for the farmers and for the staff oof both CSB and DOSs of different States.**Contd***

Contributed significantly in bringing out the visibility of the center through Exhibition, Demonstration, Awareness Programme Field Days and Krishimela.

*Our Member Secretary **appreciated** our activities ofthe Eri complex and also for the quality in the construction of infrastructure and its maintenance.*

