Success Story: Implementation of Cluster Programme for Bivoltine Sericulture in Siddlaghatta Area

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Siddlaghatta of Chikaballapura district is a famous place in the map of sericulture of Karnataka and as well as in the country due to its production of quality raw silk. The sericulture as a main occupation for the people of the taluk since decades. Sericulture was opted as a joint venture with cattle rearing famously known as “Silk-Milk” revolution in the Kolar district under which the taluk was also a part before bifurcation of the district in to two. The area is a traditional hard-core cross breed rearing area. Unlike other farmers, the farmers of the area are very fast in adoption of new technologies amidst of odds of comparatively higher temperature & water constraints. Almost all farmers own independent rearing house to their requirement, by using the CDP schemes as well as other schemes of the state. They have high yielding mulberry V1 in their garden. They have adopted the drip irrigation.

It is known to all that, Central Silk Board is implementing the schemes for sericulture development across the country under Catalytic Development Programmthrough Department of Sericulture. In order to give more thrust for Bivoltine silk production during 12th Plan Central Silk Board and Department of Sericulture are jointly implementing the “Cluster Promotion Programme”. Siddlaghatta is one of the mother Clusters identified for popularisation & promotion of Bivoltine. Practically convincing the farmers to opt Bivoltine is major task to break the traditional cross breed rearing. This is due to the fact that the farmers have planned programme of brushing dfls/taking up rearing and their mulberry garden is also pruned accordingly.

Under the CPP, two brothers from Seegehalli village of Siddlaghatta Taluk took up Bivoltine F1 rearing and obtained tremendous success in their venture. They have been practicing sericulture as an ancestral occupation.

Sri Veeranna S/o Kempanna is the elder brother owns a land of 8 acres of mulberry with V1 & 1 acre of M5 plantation. In addition to this he also owns 4 acres of Cashew, 2 acres of Mango and 3 acres of Grapes. He opines that, of all the crops, sericulture is more profitable & timely return commercial crop.

He is having 2’ x 3’, 2’ x 4’ and 3’ x 3’ spacing plantation and appreciates the quality & yield of leaf in 2’ x 4’ and 3’ x 3’ spacing and intending to convert the other one also for higher spacing. He applies 8-10 tractor load of FYM / acre every year and 200 tractor loads of tank silk once in two years. He advocates very less chemical fertilizer as recommended by the soil testing lab. He is of the opinion that, good quality mulberry leaf ensures 40-50 percent crop success, and another 50 percent management which in turn depends on input to the garden, irrigation and timely maintenance, which he is ensuring.

Sri Veeranna owns a good ventilated pucca RCC rearing house of 150’ x 30’, bifurcated in to 2 portions fitted with shoot rearing stands on either side of dimension 6’ x 50’, which is sufficient for their rearing of 750-800 CB dfls. In the middle of the row portions, a space of 10’ x 10’ is left overfor sorting the matured worms to transport them to the ventilated, vast and guarded rearing shed constructed on the roof.

Though he is CB rearer, he opted for rearing Bivoltine F1 at the instance of CPP, Siddlaghatta. He reared 200 dfls chawki worms supplied from Darshan, CRC, Gouribidanur, a franchisee of SSPC, Bengaluru (lot No 275 – Double Hybrids). Of which he could harvest 193 Kgs of very good quality cocoons. Like all other farmers of Siddlaghatta area who prefers to market at Siddlaghatta, he marketed at Govt. Cocoon Market, Siddlaghatta @ Rs.600/- Kg, which is the record in

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Imperial Journal of Interdisciplinary Research (IJIR)  Page 1488
the history of GCM, Siddlaghatta. The recorded yield/100 dfls was 96,500 kg. Sri Basha, the reeler who purchased the cocoons also got 6.5 renditta with his cottage basin at Siddlghatta.

The farmer uses machinery for his farm activities & transportation of leaf. Besides this Sri Veeranna is involved in dairying (10 in Nos) & Sheep rearing (22 in nos). The litter waste generated from the silkworm rearing will be utilized for Bio-gas along with dung waste obtained in sheep rearing & dairy.

Sri Veeranaa with his son Devaraj in front of his rearing house

Sri Devaraj S/o Veeranna in his garnen

Sri Veeranaa with his son Devaraj attending the rearing

The CSR haybrids reared by Sri Veeranna

Sri Veeranna with his technology for transport of matured larvae (1)

Sri Veeranna with his technology for transport of matured larvae (2)
Mr. Veeranna innovated a technology for transfer of matured larvae rearing house to mountage hall top of the rearing building.

He attributes the success to good quality leaf, good rearing environment, proper disinfection with bleaching powder & fumigation, proper spacing, apart from the personal hygiene of the workers. Also, he points out the narrow line of more care during rearing and also the quality & requirement more matured leaf compared to CB rearing. Hence, their labour component has engaged workers for leaf harvest & transportation and harvesting. Very few labourers are used for only rearing and major share is from family. He also urges that, all their produce needs to be marketed at Sidlaghatta only with a note that, “if the produce is good, there will be a demand” and has come true in his case.

Sri Narayanaswamy S/o Sri Kempanna, Seegehalli is the brother of Sri Veeranna, a successful farmer. He also owns his ancestral property. He goes back to his old days with 2 acres of local & M5 variety of mulberry rearing very less quantity of 50-75 dfIs per crop. At presents he maintains 9 acres of Mulberry with V1 in about 6 acres and rears 750-800 CB dfIs. He sincerely thanks the guidance given by Dr.R.K.Behl, then Deputy Director, SSPC, NSSO, Vijayapura for bringing a change in his farm & rearing.

Like his brother, Sri Narayanaswamy also gives utmost importance for the mulberry garden maintenance. He applies 8-10 tractor loads of FYM/acre and tank silt of 80-100 tractor loads/acre every year. This apart, heis having drip irrigation facility. The chemical fertilizers application is as per the recommendation based on the soil testing results. He also has practiced “Trenching-Mulching” as per the programme of Dept. of Sericulture, which as per his opinion, has increased the quality of leaf. In addition to mulberry he also maintains Grapes (2 ½ acres); Cashew (2 acres); Ragi (2 acres). He has dairy & bio-gas unit supported by 10 cows and 10 sheep.

His rearing house is placed very near to the garden with a dimension of 120’ x 35’ divided into 2 portions accommodating 24 racks each with a dimension of 5 ½ ‘ x 45’. He also owns a separate building of 25’ x 18’ with 6 racks of 5 ½ ‘ x 24’ for rearing of the chawki worms upto III moult after the receipt of chawki worms from CRC. He is having a planned rearing of one crop/month with sychronised pruning schedule for his garden. Though, the rearing activities are carried out by his family members only, he employs up to 5 workers in Vth age and 15-20 workers for one day for cocoon harvesting. He also has a separate mounting hall for mounting the matured larvae.

Like any other farmers, he is also CB rearers. Recently, during December ‘13 under CPP, Sidlaghatta, he reared Bivoltine Hybrid chawki worms of 400 dfIs supplied from Deepa CRC, Muthsandra, a franchisee of SSPC, NSSO, Bengaluru (Lot No. 52, CSR4 x CSR2). Like his brother, he could harvest 398 kgs of quality cocoons, recording an yield of 99.5 kg/100 dfIs, which he marketed @ 470/- to 480/- per kg at Govt. Cocoon Market, Ramanagaram. He has understood his mistake of marketing the cocoons like CB cocoons, where he took the cocoons a day earlier loosing Rs.25/- Rs.30/- per kg.

The following observations:

The concept of supply of Chawki worms has become a time saving scheme & has helped him to perform effective disinfection of his rearing house using Bleaching Powder (1 day), Decol (1 day) followed by Formaline fumigation. To attributes less or no loss due to disease incidence of his crop to this practice of disinfection. This time gap 10 days used for chawki rearing, he claims that, helped him to take up all the intercultural operation of his mulberry garden effectively.

As per the planned programme of one crop/month he has organized the pruning schedule of the garden. With the intercultural operation he is producing a very good mulberry leaf, which he claims 40% for the success of his crop. Further, the rearing house is provided with good ventilation & aeration facility along with maintenance of good hygiene has helped to reap good harvest. Also, the spacing during IV & V age and use of bed disinfectants has given a way for good development of larvae.

He informs that. Little more care & feeding of quality matured leaf for Bivoltine rearing is required. He feels that, the rate fetched to his product is really more than Rs.60- to Rs.70/- per kg more than the CB cocoons, which could be Rs.100/- to 110/- but for his mistake and expresses his complete satisfaction on the performance of Bivoltine hybrids.
Matured, healthy Bivoltine F1 larvae

Happy family member shares with department officer

View of the good reap of Bivoltine F1 cocoons

View of the good reap of Bivoltine F1 cocoons
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<th>A separate Mountage hall for spinning</th>
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![A separate Mountage hall for spinning](image1.jpg)  
![Plastic Mountage for spinning](image2.jpg)