

Smart Cocoon Harvester: Innovation in Silk Farming

Profile of Innovator:



Name	Shri. G. Gurumoorthy Setty
Age (in Years)	51
Education	Matriculate
Experience (in Years)	15
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Brief description of Innovation

Chittoor district is popularly known as “The district of Silk and Milk” due to large scale adoption of Sericulture and Dairy enterprises as income generating activities in addition to Agriculture. Sericulture is practiced in about 39000 Acres in the district especially in western part of Erstwhile Chittoor district. The idea behind development is while rearing Silk worms for cocoons all the worms come to maturity (pupae stage) and it will spin the cocoons. On the 6th day of spinning, within one day farmers have to harvest, clean and bag the cocoons and bring to the cocoon market is laborious and requires more labor in a day. This made him to invent integrated harvester which can do harvesting, cleaning and bagging of cocoons at a time by using manual power or mechanical power or electrical power.

Innovation's Highlights

Sri Gurumurthy Chetty developed the machine by using locally available machine components and other local materials. It is operated using 0.5 HP motor. Dimensions of the cocoon harvester is 8 ft (L) × 2 ft (W) × 4 ft (H); It weighs approx. 160 kg. The machine can be operated either by manually or using electric power or mechanical power using motor bike (attaching harvesters' shaft with bikes back wheel). The cost of the machine is Rs.40000/-. The floss on the cocoon can be removed by changing the sieve or net in the machine.

Benefits/Advantages

Integrated Cocoon harvester can harvest, clean and bag 120 netrikas per hour and 700 netrikas in a day (Required 6-8 member of labour). About 60% of labor can be saved by using this harvester (35-40 members are required in manual method of cocoon harvesting). Farmers can take their produce to the market on the day of harvest which fetches good market price to the farmers.

Scope & Potential of Innovation for Wider Reach/ Out Scaling

The machine has a huge potential in silkworm rearing industry which requires a greater number of labor for harvesting of cocoons from nethrikas. The machine cost is Rs. 40,000/- per unit and it is affordable to all the farmers especially small and marginal farmers.

Scientific Validation required

Needs validation

Domain	Development of Innovative Tool for Silkworm cocoon harvesting.
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