# Silk worm rearing tray<sup>58</sup>

# CONSOLATION

**S. M. Mangali** is a 77-year old retired school teacher in Shirahatta taluk in Gadag district of Karnataka. He is now fully involved in agriculture dividing his time between sericulture as well as in the dairy sector. A man with great vision, Mangali has strived hard to do his bit to improve the lot of fellow farmers. Mangali has a monthly income of Rs. 3000 and supports a six-member family.

## Genesis

The inconveniencies encountered by Mangali while using the conventional trays namely high cost, greater space and labour needs motivated him to develop this modified trav. He has been using these innovative trays for the past two years. Currently it is being used only by Mangali, but there is widespread potential for this innovation in the silk-rearing belt. So far there have been no business enquiries and he has not been approached for licensing the technology. Mangali feels that people's attitude must change in order to accept and follow innovations and new ideas. Illustrating this point he explains how he is always ready to seek the co-operation of his fellow farmers and innovators in developing his innovations. He plans to seek help from his former students, some highly placed friends, taluk and district level officials to disseminate information regarding the above. NIF has sanctioned an amount of Rs. 31, 250 from its Micro Venture Innovation Fund for the prototype development and market survey of the modified silkworm rearing tray along with another innovation- the Uzi Fly Trap by Mohammed Wakeel.

#### The Innovation

Mangali has optimized the size, material,

weight and arrangement of the silk worm rearing travs thus achieving increased cocoon capacity along with a host of benefits. These modified trays are rectangular unlike conventional round travs and can be stacked on racks. He has made these 3 feet by 4 feet trays using wooden strips and plastic wires. Hence they are light weight and of low cost. A single person can handle them comfortably and they can be hoisted up to a height of 5-6 feet. More travs can be accommodated on the racks as with the use of these trays the space between two travs on the stands can be reduced to 10" - 12". Thus by using these trays one can double the capacity of silkworm rearing room. These trays are also easier to sterilize and disinfect by dipping in bleaching powder solution or any other disinfectant. With these trays it is more convenient to feed the silkworms, harvest mature cocoons and clean dead and decomposing worms or cocoons. This will also help to prevent the spread of infection if there is any. Further more the trays are long lasting and eco-friendly as there is minimum requirement of wood for its construction. These modified trays remove the tediousness of placing the cocoons in conventional round trays, stacking them and removing them periodically for



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cleaning and feeding. This saves a lot of time, effort and money.

## A convenient hand weeder

The process of weeding is laborious and is directly related to the quality and quantity of the yield produced. Since traditional weeding practices involve a lot of manual labour, it is time consuming and physically very tiring. This prompted S.M.Mangali to design a low-cost hand weeder. The weeder he designed can accommodate different attachments ranging from 4"



to 24" width, as per crop spacing, to do weeding, remove debris and for inter-culturing. This weeder is more efficient than the conventional implements used

for weeding. It can be operated while standing, requires less time and less labour and the physical strain caused is comparatively less.

# Man with a mission

Mangali makes it a point to attend all the meetings, camps and workshops organized by various NGOs and other organizations in the state for the benefit of farmers, agriculturists and innovators as this gives him an opportunity to interact with like-minded people. He feels that the government must also organize exhibitions frequently, for the benefit of farmers and other grassroots innovators, which would provide a suitable platform to exhibit such useful innovations. He wishes that technical expertise would be extended to innovators to improve their innovations.

While attending gatherings, Mangali talks to fellow farmers and innovators about NIF, the Honey Bee network and Hittalagida. He also tries to convince them to subscribe to the magazines brought out by these organisations in order to gain knowledge and keep abreast of all the happenings in the field of agriculture and related fields. Mangali is also ready to extend his wholehearted support, co-operation and help, if needed, to further the activities of KIN (Karnataka Innovators' Network), Honey Bee and Hittalagida.