



State Award - Maharashtra

Silkworm Breeding Net Folding Machine

Sunil Ajurnarav Shinde
Jalna, Maharashtra
Scout: Direct

Sunil Shinde (47) is part of a big joint family engaged in farming and silkworm rearing. Facing labour shortages in agriculture, he has designed and developed several agriculture tools.

In sericulture, a specially designed V-shaped net is used to establish the silkworm colony. The silkworm net must be appropriately folded and tightly bound with ropes until the next cycle. Otherwise, its shape gets distorted, and the cocoon cannot be grown properly in the distorted nets, lowering productivity. Sunil has over 1000 such nets, requiring at least two skilled labourers who can manually fold and bind only 200 nets in a day.

Sunil has made a device using which silkworm nets can be efficiently folded and bound with ropes. The device is a square pipe structure consisting of three parts: the main frame, platform and pressing lever. The three-pipe

platform is placed on the ground, and a bunch of nets are placed over it. After the nets are properly placed, the platform is lifted upwards towards the main frame as it is hinged at it. Once the platform is vertical, it is locked in position, and the nets are pressed downward by a horizontal pipe moved through the pressing lever. Once the nets are fully pressed, the lever is locked in position. Due to the pressing and locking, ropes can be easily tied around the nets. After properly tying the net, the locks are released and nets removed.

The weight of the device is around 16 kg. Using this device, the time required to fold and bind the net has been drastically reduced to 300 nets per hour compared to 200 nets in a day done manually. The machine is handy for the farmers engaged in sericulture activity. It saves time in folding the net and preserving the net's quality for the next cycle.

