33. Zero energy cost effective poly house technology for quick propagation of mulberry

Name of Inventor

M. F. Baqual, M. R. Mir & I. L.Khan

Type: New
Date: 2016
Patent: NA

Description of Technology

Disease free cuttings of 15-20cm length and 1.2-1.5cm diameter with 3-4 active buds are selected from 8-10 months old shoots in the last week of March. The ends of the cuttings are treated with 0.02% Bavistin solution for half an hour to ensure protection against fungal diseases. Well punctured polybags are filled with rooting medium comprising of sand, soil & well decomposed FYM in the ratio of 6:3:1. Treated cuttings are gently inserted in polybags without damaging the bud keeping the upper bud exposed. The polybags along with the cuttings are finally placed in the polyhouse. A RH of 75-80% & a temperature of 25-30°c must be maintained in the polyhouse. Irrigation is carried out as and when needed. Fertigation is carried out after 40 days of placing cuttings in polyhouse. After about 75-90 days saplings are transplanted to the main field & planted at a distance of 9" x 9". Intercultural operations are performed regularly.

Impact

COTS Mirgundis actively involved in evolving and creating high yielding mulberry varieties capable of producing nutritious leaf, the only food material silkworms live on.
This zero energy poly house technology enhances the rooting ability of poor rooting varieties like Goshoerami (commonly available variety in field), Ichnose and KNG from 10-15 percent to 65-70 percent (by the new technology and ensures 100 percent availability of true to the type plants to the farmers in shorter duration (2 years) as against 5 years (by grafting method) at 50% reduced input cost. The survival percentage of these plants continues to be above 95%.

Commercial applicability

The valley in general is not having sufficient mulberry plantation to fulfill the feeding requirements of worms up to desired extent which is the main hurdle towards the progress of Sericulture in J&K. At the peak periods of silkworm rearing farmers find it extremely hard to get mulberry leaf in required quantum for meeting out the feeding requirements of silkworms, thus the worms are deprived of food at a critical stage of development which makes them susceptible to various diseases and growth related disorders. This ultimately gets manifested in low cocoon crop production making the farmers to suffer economically. With the advent of this technology the mulberry wealth in J&K can be enriched to a large extent in a shorter time and the plants are made available to farmers at cheaper rates.