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Food Crop of Muga Silkworm-Som (*Persea bombycina*)

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SUMMARY

Som is an economically important tree used as food source by Muga Silkworm, Antherea assamensis. The plant is used to treat rheumatism, bronchitis, urinary infections, hypertension and diabetes. Som is usually grown in the Assam districts of India. Persea is a genus of about 150 species of evergreen trees belonging to Lauraceae. They are medium sized trees, 15-30m tall at maturity. The leaves are simple, lanceolate to broad lanceolate varying with species from 5-30cm in long and 2-12cm broad.

INTRODUCTION

The Muga silkworm, scientifically known as Som (*Persea bombycina*), is a fascinating insect species renowned for its unique silk production. However, what often goes unnoticed is its intricate relationship with its primary food crop, also named Som. This food crop, *Persea bombycina*, serves as the exclusive diet for the Muga silkworm during its larval stage. Cultivated primarily in the northeastern regions of India, particularly Assam, this crop plays a pivotal role in sustaining the Muga silk industry, which has been deeply ingrained in the cultural and economic fabric of the region for centuries. The cultivation and conservation of the Muga silkworm's food crop, Som, are crucial not only for the silk industry but also for preserving the rich biodiversity and heritage associated with this traditional art form.

Morphology:

The flowers are in short panicles with six small greenish-yellow perianth segments 3-6mm long, nine stamens and an ovary with single embryo. The fruit is an oval or pear shaped berry.

Seed Bed Preparation:

Select well drained high land in a shady place. Plough the land up to 30cm depth and level properly. Make the 15cm beds of 2m×1m. Maintain 30 cm gap between two beds. Apply 150kg FYM and mix it thoroughly with the soil.

Seed Collection and Storage:

Collect mature seeds from the plants during May/June. De-pulp the seeds in running water. Check the seed viability by floating test in water. Select the seed which settle at the bottom of water. Dry the seeds in shade.

Seed Dressing and Storage:

Soak the seeds for 24 hours in water prior to sowing and treat the seeds with bavistin @2gm/kg seed. Sow the 2kg seeds per bed at a depth of 1cm and 1.5cm apart. *Trichoderma* can be used for seed dressing@20gm/kg instead of bavistin.

Transplantation of Seedlings to Polytubes:

After six months of sowing, transplant the seedlings to 20cm long and 30cm diameter poly tubes filled with1:1:1@ soil:sand: FYM. Irrigate once in a week.

Clonal Propagation:

Soft branches of 4cm length with single leaf and bud are treated with 300ppm IBA for 12 hours and transplanted in moist sand bed. It ensures more than 50percent rooting. Plant two months old juvenile shoots of 30-40cmin 1:1:1@FYM: soil: sand medium during July-September for propagation of some through juvenile cuttings. Air layering technique can also be be used for propagation of selected plants.

Plantation in the Main Field:

Select well drained upland site. Plant during May-August. Plough the plot up to a depth of 30cm. Make 30cm×30cm pits at a spacing of 3m×3m. Fill the pits with 15kg well decomposed FYM. Transplant 9-12 months old seedlings into old seedlings into the pits preferably on a rainy day.

Crop Management Practices:

Periodical weedings:manually or by using tiller. Apply FYM@15 kg /plant/year up to fourth year and 30kg from fourth year onwards by making 15-20cm deep ring around the plant. Apply N:P:K@43:62:17GM/plant upto fourth year and 87:125:33gm/plant from the fourth year onwards by making 15-20cm deep ring around the plant during the April-May. Prune the plantation at 6 feet during fifth year. Practice pollarding /heavy pruning after rearing top maintain the canopy at 10-12 feet for effective management for rearing.

CONCLUSION:

Persea genus has a great genetic diversity, food source for Muga Silkworm, Propagation through seeds, transplanted crop, Pruning should be done.

REFERENCES:

Directory of Sericulture Technology 2008, Karnataka State Sericulture Research and Development Institute, Bangalore-560062.

Package of practices of Muga, Eri and Mulberry Sericulture for North E astern region of India, 2005, Central Muga Eri Research and Training and Institute, Assam.