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Mango Stem Borer

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INTRODUCTION

Mango, or *Mangifera indica*, is one of the most significant and frequently produced fruits in the tropical world and a member of the Anacardiaceae family, which also includes cashews. The mango tree is said to be native to southern Asia, particularly Myanmar and the Indian state of Assam, and several cultivars have been created. Vitamins A, C, and D are abundant in mangoes. The tree is evergreen, regularly growing to a height of 15 to 18 metres (50 to 60 feet), and living a long time. The lance-shaped, simple leaves can reach a length of 30 cm (12 inches). Small, pinkish, and fragrant flowers are carried in large terminal panicles, which are loose clusters. While some only have stamens, others have both pistils and stamens. The fruit has a wide range of shapes and personalities. It might take the shape of an oval, a round, a heart, a kidney, or it can be long and slender.

While some varieties are a dull green, others are brightly coloured in hues of red and yellow. The flesh surrounding the single large seed is flattened, yellow to orange in appearance, juicy, and has a characteristic sweet-spicy flavour. Mango stem borer is an important pest of mango tree. Mango stem borer insect damages the tree by cutting from inside. Due to which the trees dry up. Due to which the farmer brothers have to suffer a lot. Since it can kill any mango tree, controlling the mango stem borer is an essential first step.

Host range of mango stem borer

Mango stem borer damage Mango along with rubber, jack-fruit, fig, papaya, apple, eucalyptus and mulberry, morings and silk cotton crops.

Stem Borer Occurrence Areas

This insect is found in mango fields all over the country. Its outbreak is more in Punjab, Bihar, Assam and Uttar Pradesh. Apart from India, it is also found in Bangladesh and Pakistan.

Identification of Mango Stem Borer

The adult beetle of stem borer is brownish-grey in colour. In size, they are 50 to 55 mm long and 10 to 12 mm wide.

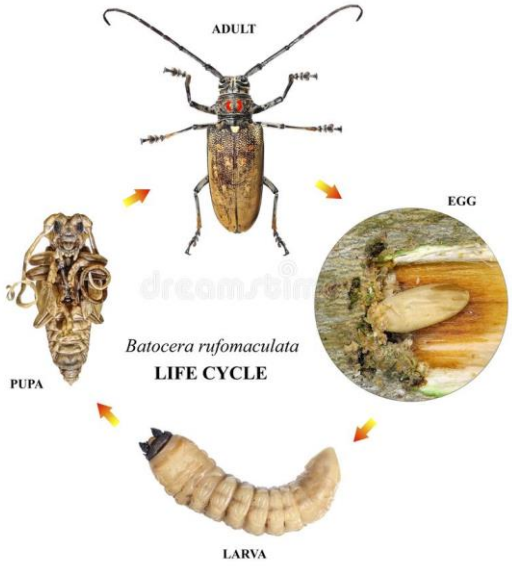
Their horns are much longer than the body. Its forehead is smooth green-yellow. And on both sides of it, small thorn-like growths keep coming out. There are small orange spots on the sides. Fully developed beetles are about 85 to 95 mm long, fleshy and light yellow.

Mango damage

The caterpillars of this insect make tunnels in the trunks and branches of trees and eat them inside. The larvae of this pest remain in the stem for many years. Meanwhile, long tunnels in the trunks and branches of trees remain filled with insect excrement, tree bark and small pieces of wood. In this way, due to its outbreak, the branches and trunk of the tree become weak. and breaks easily. The adult insects feed on the leaves, bark and sometimes the fruit of the tree.

Life cycle

The scientific name of this insect is Betocera rufomaculata. It is an insect of the Cerambicidae family. The female of this insect lays eggs one by one on the bark of the tree or in the cracks present in the bark. These eggs explode in 20 to 25 days.



These eggs are given on a daily basis. And small beetles emerge in them. Which become fully developed in 6 to 8 months. After this, these beetles make pupae in a specially made cocoon. Adult beetles emerge from these pupae in 25 to 30 days. Their complete life cycle is completed in 170 to 190 days. Adult insects live for 60 to 100 days. Adult insects mostly emerge in May-June. They are nocturnal. One generation of them is found in a year.

Management

- Plant the tolerant types of mangoes Neelam and Humayudin.
- Cut off and remove all of the tree's dead and seriously damaged limbs iii. Avoid harm at the trunk's base when

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trimming, and take out nearby alternate hosts such silk cotton and moringa.

- v. Apply absorbent cotton soaked in 10 ml monocrotophos 36 SL per tree during the off-season without needlessly hurting the trunk.
- vi. To remove the grubs from the bore holes, use a needle or a long wire. The bore holes can be filled with DDVP at a rate of 5 ml, monocrotophos 36 WSC at a rate of 10 to 20 ml, or one celphos tablet (3 g aluminum phosphide). They can also be filled with carbofuran 3G at a rate of 5 g per hole, and then sealed up with clay and copper oxychloride paste.
- vii. To stop mature beetles from ovipositing, swab the base of the trunk at a height of three feet with coal tar + kerosene @ 1:2 or Carbaryl 50 WP 20 g/L.
- Its adult insects are mostly attracted towards light. That's why they can be destroyed by trapping them in the loop of light.
- Insect-affected branches can be cut and used for burning.
- Larvae can be destroyed by putting roaming poison or other insecticide in the holes made by the insect in the stems and branches and closing the holes with mother or soil like a bark-eating insect.