



ROMVIJAY
CARDAMOM

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CARDAMOM

Cardamom is a plantation crop. It is maintained for more than 10 years and the produce is realized.

Seed treatment for primary nursery:

Cardamom is propagated through seeds and suckers. For seed propagation fresh seeds are collected and acid treated for 20 min washed with water and sown in beds. About 250 g seeds required per acre is sown in primary nursery. Seed treatment with Rom – Azospirillum, Rom – Pseudomonas and Rom - Trypaemix @10 g each shall be treated, shade dried and sown in beds. The soil mixture prepared for the nursery bed shall be treated with 1 kg each of Rom – Azospirillum, Rom – Pseudomonas and Rom- Trypaemix prior to sowing. The seeds germinate in a month.

At 3rd and 6th months 250ml each of Rom- Poly functional microbes and Rom – Bio Boost Hum mixed with 50 – 100 liters of water is sprinkled on the plants in nursery by means of a rose can.

Seedling treatment before planting in secondary nursery or Poly bags:

One year old seedlings from primary nursery is removed and planted in secondary nursery or Polybags. Seedling root dipping shall be done for 15-20 min in a suspension of 1 kg each of Rom-Azospirillum, Rom-Pseudomonas and Rom-Trypaemix and Rom – Root grow 250 ml prepared in 50 -100 liters of water. The remaining suspension shall be sprinkled on the secondary nursery bed or on soil mixture prepared for filling polyethylene bags.

The nursery bed soil or the soil intended for filling polybags shall be mixed with 1 kg each of Rom-Azospirillum, Rom-Pseudomonas, Rom-Trypaemix and Rom-Root grow 250 ml. Seedlings from primary nursery shall be planted after mixing these biofertilizers.

The biofertilizer treatments in primary and secondary nursery induces a vigorous growth of seedlings so that seedlings from primary nursery shall be removed after 8-10 months instead of after 1 year and those from secondary nursery can be planted on main field within 1 year instead of maintaining it in the nursery for 1 ½ to 2 years. This saves the nursery period and also the labour in its maintenance.

Treatment of suckers before planting:

Cardamom suckers from high yielding plants are safely removed and planted. The suckers can be root dipped for 10-15 min in slurry prepared with 1 kg each of Rom-Azospirillum, Rom-Pseudomonas and Rom – Trypaemix and 250 ml of Rom - Root grow in 50 -100 liters of water prior to planting in pits.

Rom – Bio package one bag (40 kg) containing bio fertilizer , bio control agents and micronutrients shall be mixed with 500 – 1000 kg of farmyard manure or compost or any other organic manure or plantation soil rich in organic carbon In appropriate quantity so that 0.5-1.0 kg of the mixture can be applied to each planting pit. This accelerates plant growth and protect the plants from soil borne diseases.

Apply 5 ml each of Rom – Polyfunctional microbes and Rom – Bio Boost Hum in 1 l of water to each pit at 2 months interval. After 1 year of growth apply 10 ml of these two liquid formulations in 1 l of water per pit.

Spray water soluble MN foliar @ 1 kg / acre dissolved in 200 liters of water at 6 monthly intervals to alleviate micro nutrient deficiency.

Control of damping-off or clump rot or rhizome rot:

Damping-off of seedlings, clump rot and rhizome rot are caused by soil borne plant pathogenic fungi. Seedlings rot due to damping, off. In clump rot leaves turn pale and yellow and dry up. Tillers become thin and finally rot. Rhizomes underneath the soil also rot.

To prevent the disease in nursery sprinkle 2% solution of Rom-Trypaemix over the seedlings by means of a rose can so as to reach the soil and root. When clumps are affected apply 50 g of Rom-Trypaemix to the affected plants in appropriate quantity of water. Combining of Rom – Polyfunctional microbes and Rom – Bio boost Hum each at 10ml with the above solution will invigourate the infected plants.

Control of Azhugal – Capsule rot- panicle rot:

Azhugal is caused by a fungus. Water soaked black lesions appear on leaves which coalesce leading to rotting. Terminal leaves also turn yellow and rot. Lesions appear on inflorescence stalk and capsules leading to capsule drop, rotting and yield loss.

To control Azhugal disease spray 2% solution of Rom – Pseudomonas when one or two leaf spots are observed. Repeat applications after 10 – 15 days. When roots are affected due to advancement of disease apply 50 g Rom – Trypaemix, 10 ml each of Rom – polyfunctional microbes and Rom – Bio Boost Hum in adequate Quantity of water and pour in the root of affected plants. Repeat application to the clumps after 10-15 days.

Control of leaf blight (chenthal) of cardamom:

Leaf blight commonly known as chenthal is caused by a fungus. Water soaked elongated spots with light yellow center appear on leaves which turn brown and black with the advance of the disease. Leaves dry up and fall and the tillers wilt. Inflorescence is also affected which dries up from the tip. In the infected field plants dry up in patches giving a burnt appearance.

To control leaf blight or chenthal disease spray 2% solution of Rom – Pseudomonas when one or two leaf spots are seen. Adequate quantity of spray fluids (200 liters or more) shall be used to cover the entire canopy. Repeat spray after 10 -15 days to have an effective control.

Control of Root grub, Stem borer and Capsule borer in cardamom:

To control root grub apply 20 g of Rom – Grubkill in 10 liters of water in the root zone of clumps.

To control stem and capsule borer spray 2% solution (2 kg/ 100 litres or 500ml) of Rom – Grubkill on the foliage fillers and capsules immediately after the pest occurrence. Repeat spray after 10 -15days.

Control of thrips and white flies:

Thrips attack tender leaves, inflorescence and capsules. White flies attack leaves and tender parts of the clump. To control thrips and white flies spray 2% solution of Rom – Verlac covering the canopy. Use adequate spray fluids to cover all the clumps.

Control of nematode attack:

Nematodes attack young plants in the nursery and older plants in the main field. Seedlings become stunted and tillering is affected due to nematodes. Leaf tip and margins become yellow and dry up. Nematode infected clumps exhibit profusetillering. To control nematodes in nursery sprinkle 2% solution of Rom – Trypaemix in the nursery. Apply 50 g Rom – Trypaemix per clump in 10 l of water along with 10 ml each of Rom – Polyfunctional microbes and Rom- Bio Boost Hum to affected clumps.

CARDAMOM HEALTHY PLANTS



DISEASES IN CARDAMOM: CAPSULE ROT





Shoot borer damage



Early stage borer larvae



Shoot borer larvae in cardamom



Borer infected shoot



Borer infectd capsules



Thrips affected capsules



Thrips damage in cardamom capsules



Cardamom capsules damaged by thrips



CARDAMOM BORER RESIST

To avoid incidence of Stem borer, capsule borer and other diseases that are affecting Cardamom it is better to increase the resistance of the cardamom plants as a permanent measure

This is possible by increasing the uptake of nutrients like Potassium and Silica by cardamom plants

Cardamom borer resist is a combination product such nutrients namely SILICON and POTASSIUM plus bio disease preventers like Pseudomonas and entomopathogenic fungus BEAVERIA

By spraying this on the Cardamom clumps covering the entire leaf canopy, stems and bottom root portion we are providing a resistance cover against pests and diseases

In due course these nutrients are absorbed by the plants and the plant becomes resistant to these borer and disease attacks

Spray 2 percent solution of CARDAMOM BORER RESIST at least twice to get better results

Contains: Phytosil, Potassium chloride, Silicate solubiliser Potash solubiliser, Pseudomonas, Beauveria.

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