

Garlic originated in Central Asia and has now spread across the world. For use as an insecticide it should not be grown using chemical fertilisers. This is because heavy doses of fertiliser reduce the concentration of the effective substances in the garlic. It has anti-feedant, bacterial, fungicidal, insecticidal, nematicidal and repellent properties.

Preparations

• Garlic spray

Blend 100 grams of grated and crushed garlic cloves, 0.5 litres of water and 10 grams of soap (Use potash based soft soap that is used for washing dishes and not the modern washing powders that contain caustic soda which will harm plants). Mix well. Strain the mixture through a fine cloth. Dilute the solution in 5 litres of water.

How to use: Mix the solution well before applying to the affected plants. Use as a spray or sprinkle using twigs or grass tied together to form a whisk. For best effect, use the mixture immediately.

Garlic is effective against a wide range of diseases and insects at different stages in their life cycle (egg, larvae, adult). This includes ants, aphids, army worms, caterpillars, Colorado beetle, diamondback moth, pulse beetle, whitefly, wireworm, false codling moth, imported cabbage worm, khapra beetle, mice, mites, moles, Mexican bean beetle, peach borers and termites as well as fungi and bacteria.

Nematodes can also be controlled by drenching the soil with garlic liquid. However this method may also kill many beneficial soil bacteria and insects.

Garlic is effective against so many pests and diseases that different strengths may need to be experimented with.

Note: *The taste of garlic will remain on sprayed plants for one month after spraying so it may be best to avoid spraying near harvest time.*



garlic

- **Garlic powder spray**

Crush and grind dried garlic bulbs. The powder can be used directly onto affected plants. A useful spray can also be made. To do this, add the powder to water and mix well. The amount of garlic powder needed depends on how strong the garlic is.

How to use: This mixture is useful against scab, mildew, bean rust and tomato blight.

- **Chillis and garlic spray**

Grind 1 garlic bulb and 1 onion. Add 1 tablespoon of powdered chilli peppers. Stir into 2 litres of hot water. Leave the mixture to cool. Strain through a fine cloth and keep the liquid. Add 1 tablespoon of soft soap and stir well. Use potash based soft soap that is used for washing dishes and not the modern washing powders that contain caustic soda that will harm plants.

How to use: Use as a spray for caterpillars in fruit trees.

- **Garlic and *Tephrosia vogelii* spray**

Pound fresh *Tephrosia* leaves and dried garlic leaves into a paste with a little water. Stir 50g of this mixture into 1 litre of water. Mix well, sieve and keep the liquid.

How to use: Use the solution as a spray against cabbage worm. Use 1 litre per square metre. Apply once every week until 2 weeks before harvesting of the crop.

Other uses of garlic

Intercropping: Traditionally garlic has been intercropped with many crops. This strong smelling plant hides the smell of the crop it is planted with. Intercropped with cabbage, garlic may deter the diamondback moth. Also, planting 4 rows of sorghum with 7 rows of garlic helps to prevent shootfly infestations.

Garlic can also be planted around fruit trees to repel aphids, fruit tree borers, termites, mice and other pests.

WARNING: Garlic is a broad spectrum insecticide. This means that it will kill beneficial insects as well as pests. Try to spray only the affected areas where pests are doing most damage.

Produced by the Tropical Advisory Service, June 2000

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