

ROOTKNOT CONTROL IN THE HOME GARDEN

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Rotation has long been the standard recommendation for the control of rootknot and other soil-borne diseases in the home garden. To practice rotation, however, you need twice as much garden space as is used for continuous gardening, so that vegetables and cover crops, such as small grains and grasses, may be grown on the plots in alternate years. Since rotation is often impracticable because of limited garden space, here are directions for the use of fumigants in the control of rootknot nematode.

Two materials are effective in controlling rootknot nematodes, namely, Dowfume W-40 and DD. There are also some other materials on the market that have not been fully tested. The fumigants are purchased in liquid form and applied to the soil as liquids where they form a gas and spread throughout the soil killing the nematodes.

How to use the fumigant: First, work the soil into a level seed bed. The soil temperature should not be lower than 40° F. and not higher than 80° F. Soil moisture should be adequate to germinate seeds. Using a plow or hoe, make furrows in the soil 12 inches apart and 6 to 8 inches deep. Take a small-necked, or standard, fruit jar, puncture the cap with a nail, fill with the fumigant, and recap the jar. Apply the liquid fumigant by walking along the furrow and dribbling the fumigant in the bottom of the furrow. Immediately cover the furrow to prevent the escape of the fumigant gases. A pint of the fumigant should cover about 200 running feet of furrow, which would require 5 pints for 1,000 square feet of garden. It may be advisable to test first with water to determine how fast to walk to get this amount of material distributed in the furrow.

Take care not to use the fumigant closer than two feet of growing plants, since severe injury is liable to result. Do not get the fumigant into the eyes or mouth. If the material is accidentally spilled on hands or clothing, it should be immediately removed by washing with soap and water, or by using kerosene to remove it from the skin.

Wait at least a week or 10 days after treatment before planting anything in the treated soil. This is necessary because the fumigant is toxic to plants and germinating seeds. If the temperature during this time is low (below 60° F.), or if there has been excessive rain, the time lapse should be increased to about two weeks or longer.

It is often more convenient to fumigate several months before planting time. This will be entirely satisfactory if the temperature and moisture conditions in the soil are right. You can fumigate in the fall and plant in the early spring. A cover crop planted in the fall following fumigation will not reduce the beneficial results of the treatment.

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