

MINT (SUPPRESSION OF VERTICILLIUM WILT)

General Information

WHEN TO USE MAXIMUM AND MINIMUM RATES

The application rate of Metam KLR 54% is dependent on the soil type to be treated and the position in the soil of the pest to be suppressed or controlled. For maximum control or suppression, an understanding of the pest, its location and its respiring state will ensure maximum performance of Metam KLR 54%. Generally, a light sandy soil requires a lower application rate than a heavier mineral soil. In addition, if the pest is in the upper portion of the soil profile (annual weeds), a lower application rate is generally required than if the pest is deeper in the soil profile and deeper penetration is desired (perennial weed seeds and nematodes). When a range of application rates is given in the label, consult your local agricultural extension service for more specific information. Metam KLR 54% is recommended for the suppression or control of the following soil-borne pests that attack ornamental, food and fiber crops (consult specific cropping and application instructions for recommendations):

Weeds and germinating weed seeds such as Bermudagrass, Chickweed, Dandelions, Ragweed, Henbit, Lambsquarter, Pigweed, Watercress, Johnsongrass, Nightshade, Nutsedge (suppression only), Wild Morning-glory and Purslane; Nematodes (suppression only), Symphylids (Garden Centipede) and soil-borne diseases such as Rhizoctonia, Pythium, Phytophthora, Verticillium, Sclerotinia, Oak Root Fungus and Club Root of Crucifers.

Nematodes and Nutsedge: Nematode suppression is achieved when Metam KLR 54% converts to MITC and makes contact with active forms of the nematodes, preferably juveniles. Endo-parasites in plant residue may not be suppressed. Plant residues from previously infected crops should be completely decomposed prior to Metam KLR 54% application to ensure maximum exposure. Eggs are more difficult to suppress than juveniles, but are susceptible. Pre-irrigation has been demonstrated to stimulate egg hatch of some species and may enhance overall Metam KLR 54% performance. Nutsedge may be suppressed with Metam KLR 54% if actively growing and a high use rate is used (75 gal/acre). More often, rhizomes, roots and shoots will be controlled but the tuber will remain viable and at a later

time regrow. Treatments made immediately prior to a crop planting (after the necessary waiting period) will give a weed-free period for crop establishment.

USE PRECAUTIONS

Keep children and pets out of treated areas. Metam KLR 54% uses described on the label are intended for preplant soil preparation only. All plant foliage and any established plants growing on the treatment sites will be either severely damaged or destroyed. Keep the product off of any desirable turf or plants. Do not apply within 3 feet of the drip line of desirable plants, shrubs, or trees. Do not use in confined areas without adequate ventilation or when fumes may enter nearby dwellings. Do not use in greenhouses. Keep container tightly closed when not in use. Do not store near feed or food. NOTE: Metam KLR 54% will suppress and/or control only those pests in the fumigation zone at the time of treatment. Reinfestation may occur subsequent to the fumigants dissipation from the soil.

TREATMENT GUIDELINES

For optimum results, certain procedures should be observed at designated times in the treatment program. Described below are important guidelines for each of the four stages of the treatment process. Consult your Sales Representative for the appropriate treatment program for your particular needs.

- Pre-Application
- Field Preparation Prior to Application
- Application
- Pre-Planting After Application of Metam KLR 54%

PRE-APPLICATION

Metam KLR 54% is applied post-harvest and 14 to 21 days before a new crop is planted (see "Testing of Treated Soil Before Planting" section). In some areas, fall application is preferred as the product will dissipate over the winter that allows planting to begin as soon as favorable springtime conditions arrive.

Application Rate

Apply up to 30 to 62 gallons of product per treated acre depending on crop, target

pest and soil properties. Some of the soil properties to consider when determining the application rate include soil texture, percent organic matter and depth of soil to be treated.

Target Pest and Depth of Treatment

When application rates for this product are given in ranges, use the higher rate if pests (insects, nematodes, etc.) are present in high numbers or if the area to be treated has a history of pest problems. Consult with your State nematologist, entomologist and plant pathologist to determine if crop rotation is more feasible or desirable than fumigation. NOTE: This product will only suppress or control pests that are in the fumigated zone at time of treatment. For control of weeds and fungi which cause seed or seedling diseases, treatment of only the top 2 to 4 inches of soil may be required (see application specific requirements in the Good Agricultural Practices section of the label). Treatment depths greater than 4 inches may be required for control of nematodes and fungi which occur throughout the rhizosphere. The required application rate should be increased proportionately with the depth of the treatment required. Always choose the appropriate application method to evenly distribute this product throughout the soil to the required treatment depth.

Soil Characteristics

Soil properties to consider when determining the application rate of this product include the depth of soil to be treated, soil texture, and percent organic matter. Plant materials under the soil surface (except in the case of cover crops) should be thoroughly decomposed before application. Due to the absorbing effect of humus, soils with high levels of organic matter under the surface require higher rates. For example, muck soil may require twice the rate that would be used in mineral soils. Application rates will also vary with soil texture. For example, heavy clay soils require a higher rate than light sandy soils.

FIELD PREPARATION PRIOR TO APPLICATION

Before applying this product, always thoroughly cultivate the area to be treated breaking up clods and loosening soil deeply and thoroughly. Then sprinkle or flood irrigate to moisten loosened soil if needed (see "General Instruction" section). Immediately before treatment, cultivate lightly to break up soil crust. See Potatoes section for specific directions on the application of Metam KLR 54% to potatoes

fields where no till stubble of cover crop exist.

Soil Temperature During Treatment

Soil temperature must be from 40°F to 90°F in the treated zone. Treated zone is defined as the depth of treatment that Metam KLR 54% achieves at the time of application. To prevent rapid evaporation of the product from the soil, avoid treating soil during the time of day when soil temperatures exceed 90°F within the first two inches of soil. Instead, make the application at night or in early morning when the soil temperature is coolest (also see Weather Conditions and Identifying Unfavorable Weather Conditions in the Good Agricultural Practices section of the label).

Phytotoxicity

Metam KLR 54% is phytotoxic. Protect valuable, non-target plants by stopping soil applications of this product at least three feet short of the drip line of trees, shrubs and other desirable plants. For sprinkler application, crop injury and lack of effectiveness can result from non-uniform distribution of the treated water.

Limitations, Restrictions, and Exceptions

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When infestation is limited to small spots in a field, the spread of Verticillium can be reduced by treating the infected spots. Apply at the rate of up to 62 gallons of Metam KLR 54% per treated acre using injector blade or thin shank injector rig. Follow directions for “Field Application Where Entire Area Is Being Treated”.

ADDITIONAL INFORMATION/RECOMMENDATIONS

SEED TREATMENT: A suitable fungicide should be used to treat all crop seed being planted into the treated soil.

Method

[Injection](#)

Rates

[field_rates 0](#)

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Timings

N. A.