



Ranman fungicide protects yields

With a new mode of action on Cavity Spot in Carrots

Ranman® 400SC fungicide, marketed by FMC, has a unique mode of action that provides suppression of **Cavity Spot, Root Dieback/Forking (*Pythium* spp.)** when applied as a post-plant, pre-emergent application or as a soil-directed spray. Unlike most fungicides that only control some disease stages, Ranman is active in all stages of the disease life cycle. It provides excellent protection against diseases caused by oomycetes, especially infection by pathogens of the genera of *Pseudoperonospera*, *Phytophthora*, *Pythium*, and *Plasmapara*. Ranman is an excellent fungicide for protecting yields in cucurbits, potatoes and carrots.

Labeled Crops and Diseases:

Ranman prevents **Downy Mildew** in cucurbits, **Late blight** and **Late blight tuber rot** on potatoes, and suppression of **Cavity spot, root dieback/forking** in carrots. A short pre-harvest interval of 1 day in cucurbits, 7 days in potatoes, and 30 days in carrots fit common cultural practices. Re-entry is 12 hours. Crops not on the label can be planted 30 days after the last application. Ranman is not recommended for use in greenhouses.

Cavity Spot, Root Dieback/Forking of Carrots (*Pythium* spp.):

For the suppression of Cavity spot, root dieback/forking (*Pythium* spp.) use 0.44 L/ha Ranman 400SC as a post-plant, pre-emergent application within 3 days of planting or as a soil-directed spray 14 days after planting. Apply a maximum of one application per season. Apply in sufficient water for full coverage and follow with sprinkler irrigation if 1.25-2.5 cm of water to move the product to the root zone. For the surface application 14 days after planting apply directed at the base of the plant. Incorporate into the soil with 1.25-2.5 cm of water.

Good Residual Activity:

Ranman's affinity to waxy surfaces of the crop ensures superior rain fastness and long residual control.

Unique Mode of Action:

The unique mode of action of the active ingredient inhibits all stages of oomycetes fungal development, including zoospore release and motility, cytospore germination, mycelial growth, oospore formation, and zoosporangia formation.

GOOD SPREADING PROPERTIES:

Ranman has a very low water solubility (0.1 ppm) but good spreading properties on the plant surface. The use of an adjuvant contributes to further promote thorough plant coverage. Outstanding wetting ability on crop foliage is a beneficial characteristic, especially for protectant and locally systemic fungicides, as thorough foliage coverage is desired. Rain fastness forms very soon after Ranman application.

EXCELLENT FUNGICIDE PROTECTION:

Ranman is a contact fungicide, which is classified as a protectant with anti-sporulating effects and has limited systemic activity. It can be applied by ground, chemigation, or aerial application.

ONLY FUNGICIDE IN FRAC GROUP 21:

Ranman is formulated as a suspension concentrate (SC) with 400 g/L or 34.5% of the active ingredient cyazofamid. Ranman belongs to the cyanoimidazole chemical class and is the only fungicide in FRAC Group 21.

RESISTANCE MANAGEMENT:

Ranman provides growers with a much-needed novel mode of action for resistance management as an alternative to existing fungicides. Ranman is a key product for the Suppression of **Cavity spot**. There is no documented cross-resistance of Ranman with existing fungicides. Ranman should be part of a disease management program including alternate spray of fungicides with a different mode of action, Do not apply more than one application per season on carrots.

NON-VOLATILE PRODUCT:

Ranman is classified as a non-volatile compound as the active ingredient has a low vapor pressure ($<1.33 \times 10^{-5}$ Pascal's @ 25°C).

REDUCED RISK CHEMISTRY:

The active ingredient in Ranman has minimal to moderate acute toxicity in acute oral, dermal and inhalation tests. It is minimally irritating to the eyes and skin, and is a weak dermal sensitizer.

For more information visit www.uap.ca or contact your local Retailer



FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103
1-800-59-FMC-AG
cropsolutions.fmc.com

Always read and follow label directions.

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West 1-800-561-5444
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