



## KASUMIN™ Bactericide.

### A unique bactericide to help manage destructive bacterial diseases.

Bacterial diseases can spread and quickly destroy a fruiting vegetable crop under the right conditions. Concern is growing that there are not enough tools to control bacterial diseases or that resistance maybe developing to the tools that are available.

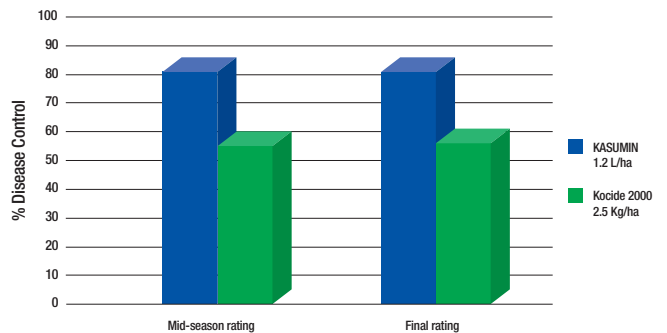
But now with KASUMIN™, growers have a new tool to suppress diseases like bacterial spot and bacterial stem canker.

### Proven Performance.

KASUMIN will provide suppression of destructive bacterial diseases – bacterial spot and bacterial stem canker in tomatoes and peppers. When used in tank-mix or rotation with currently registered products, KASUMIN will help growers manage these diseases.

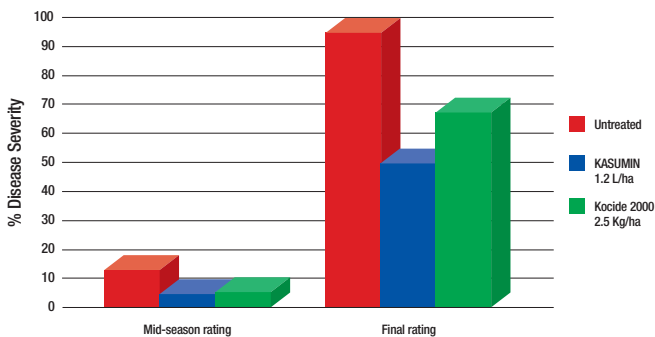
- Suppression of bacterial spot in tomatoes and peppers
- Suppression of bacterial stem canker in tomatoes and peppers
- Unique active ingredient – *kasugamycin*
- No cross-resistance to other bactericides

#### KASUMIN Activity – Bacteria Stem Canker in Field Tomato



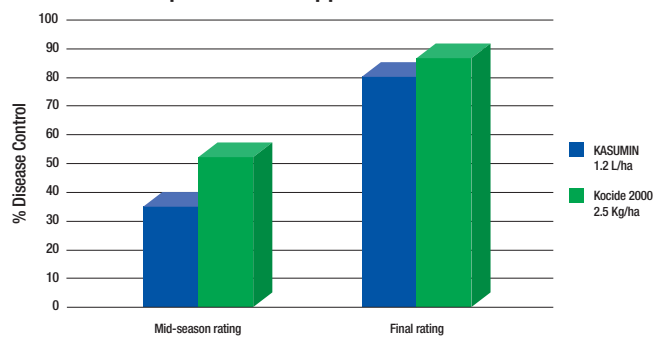
Bacterial Stem Canker (*Clavibacter michiganensis*) in field tomatoes cv. Bush beefsteak. Ontario, Canada

#### KASUMIN Field Performance – Bacterial Leaf Spot in Field Tomato



Bacterial Leaf Spot (*Xanthomonas vesicatoria*) in field tomatoes cv. Bush beefsteak. Ontario, Canada

#### KASUMIN Field Performance – Bacteria Leaf Spot in Field Pepper



Bacterial Leaf Spot (*Xanthomonas campestris*) in field pepper cv. Midway. Ontario, Canada

## A new tool for resistance management.

KASUMIN is a novel bactericide. It features a unique site of activity different from other bactericides, which makes it an excellent new resistance management tool. KASUMIN is new to the Canadian market, but it was discovered in Japan in 1963 and has been used commercially around the globe since 1965. It's currently registered for use in over 20 countries worldwide.

KASUMIN can be tank-mixed with other products (Kocide® formulations) used to control/suppress bacterial diseases as part of an overall disease management program. As with any product, sound resistance management practices should be employed to reduce the likelihood of bacteria developing resistance to KASUMIN.

## Application rates and timing for KASUMIN.

FRUITING VEGETABLES Group 8 (Including GREENHOUSE OR FIELD TOMATO/PEPPER)

\*For resistance management purposes, KASUMIN is not to be used in the greenhouse on tomato or pepper transplants

DISEASE SUPPRESSION	APPLICATION RATE TO USE	APPLICATION TIMING AND RESISTANCE MANAGEMENT
Bacterial Spot ( <i>Xanthomonas campestris</i> <i>pv. vesicatoria</i> )  Bacterial Stem Canker ( <i>Clavibacter michiganensis subsp.</i> <i>michiganensis</i> )	100 ppm  (e.g., 1.2 L/ha in 240 L/ha of water)	<ul style="list-style-type: none"><li>• Spray volume must be sufficient to provide good coverage of foliage.</li><li>• Begin applications when conditions favor disease development.</li><li>• Repeat applications at intervals that are necessary or when conditions favour disease development.</li></ul>

## RESTRICTIONS AND OTHER INFORMATION

- Do not apply more than 3.6 L of KASUMIN 2L per hectare per season
- Do not make more than 3 applications of KASUMIN 2L per season
- A 7 day interval between applications is required
- Do not make more than 2 consecutive applications of KASUMIN 2L Bactericide. If additional applications are needed, rotate with another product with a different mode of action that is registered for this use
- Do not apply KASUMIN 2L within 1 day of harvest

## Mixing Instructions for 100 ppm spray solution for fruiting vegetables

Litres of Water per Hectare (L/ha)	Product (L/ha)
50	0.25
100	0.50
240	1.2

TO LEARN MORE ABOUT KASUMIN BACTERICIDE, CONTACT YOUR CROP PROTECTION RETAILER, VISIT [WWW.KASUMIN.CA](http://WWW.KASUMIN.CA) OR CALL 866-761-9397.



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