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# NF00-423 Disease Management Guide for Home Garden Vegetables

John E. Watkins

*University of Nebraska--Lincoln*, [jwatkins1@unl.edu](mailto:jwatkins1@unl.edu)

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## Disease Management Guide for Home Garden Vegetables

*John E. Watkins, Extension Plant Pathologist*

Gardening is a favorite summer activity of backyard farmers and nothing tastes better than home-grown vegetables. Being a successful gardener requires knowledge, skill and persistence. Every summer, nature pits the skills of the gardener against weather, insects and diseases. Home-grown vegetables are not automatically superior to store-bought produce. Many factors challenge the gardener to grow plants free of blemishes, spots and rots; however, most gardeners feel it is worth all the time, expense and effort to raise that near perfect garden vegetable.

Vegetables are subject to many diseases. This NebFact will focus on integrated disease management for the backyard vegetable garden.

### Integrated Disease Management

A number of cultural practices can be used in conjunction with fungicides to help control diseases in home vegetable gardens.

- Plant disease-resistant or disease-tolerant varieties.
- Practice crop rotation by not planting the same vegetable in the same location more than twice in three years.
- Grow or buy healthy transplants.
- Select a well drained site for the garden and improve soil drainage by adding organic amendments (i.e. compost).
- Fertilize to meet the needs of the crop but do not over fertilize, especially with nitrogen.
- Control insects to reduce the spread of certain viral and bacterial pathogens.

- Check the garden regularly for disease and insect activity.
- Control weeds. Weeds can be a reservoir for virus diseases.
- Practice a fungicide spray program that focuses on disease prevention rather than crop rescue. See *Table I* for a list of available fungicides.
- When using a pesticide always read the label before application and adhere to the instructions and restrictions. Always note the time interval between application and harvest; this will be on the label and will vary for the different vegetables and for the different fungicide products.
- Organic fungicides include the sulfur- and copper-based products. These can cause injury if applied during mid-afternoon heat.
- Do not irrigate gardens in the evening with a sprinkler. Drip or furrow irrigation is preferred to a sprinkler. Irrigate in the morning.
- Keep activity in the garden to a minimum when the foliage is wet to avoid spreading certain pathogens.
- Remove severely diseased plants during the growing season and do not compost them.
- Clean up all plant residue after the final harvest. This can be composted provided the composting is done properly.

**Table I. Fungicides<sup>1</sup> for disease management in backyard vegetable gardens.**

<i>Product</i>	<i>Ingredient</i>
Ortho Multi Purpose Fungicide	Chlorothalonil
Orthocide Garden Fungicide	Captan
Garden Sulfur Dust	Sulfur
Ortho Phaltan	Phaltan
Bonide Liquid Copper Fungicide	Copper
Bonide Captan	Captan
Bonide Sulfur Plant Fungicide	Sulfur
Bonide Liquid Sulfur	Sulfur
Bonide Manzate Flowable	Mancozeb
Acme Copper Fungicide	Copper
Acme Bordeaux Mixture	Hydrated lime + copper sulfate

Acme Tomato, Fruit & Vegetable Fungicide	Mancozeb
Acme Maneb Tomato & Vegetable Fungicide	Maneb
Earl May Tomato & Vegetable Dust	Maneb
Earl May Tomato Blight Control	Maneb
Dragon Tomato & Vegetable Dust	Copper sulfate
Dragon Mancozeb Disease Control	Mancozeb
Dragon Daconil 2787	Chlorothalonil
Ferti-lome Liquid Fungicide	Chlorothalonil
Ferti-lome Rose, Flower & Vegetable Dust	Sulfur
Green Light Maneb Plus	Mancozeb
Green Light Wettable Dusting Sulfur	Sulfur
HiYield Copper Fungicide	Copper hydroxide
American Captan Garden Fungicide	Captan
American Copper Fungicide	Copper oleate
Security Fungi-Gard	Chlorothalonil
Black Leaf Bordeaux Powder	Hydrated lime + copper sulfate
Green Up Captan Garden Spray	Captan
Safer Garden Fungicide	Sulfur
GroTec Pennington Multi-Purpose Fungicide	Chlorothalonil

<sup>1</sup>Check the product label before application. The label provides application rates, safety precautions and the time interval between application and harvest.

*This list of fungicides represents the best information available. No criticism is intended of fungicides not listed, nor is endorsement given by the University of Nebraska to those listed.*

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