Martin-Gatton
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Plant Pathology Fact Sheet **PPFS-VG-44**

Organic Commercial Spray Schedule for Field Production of Peppers

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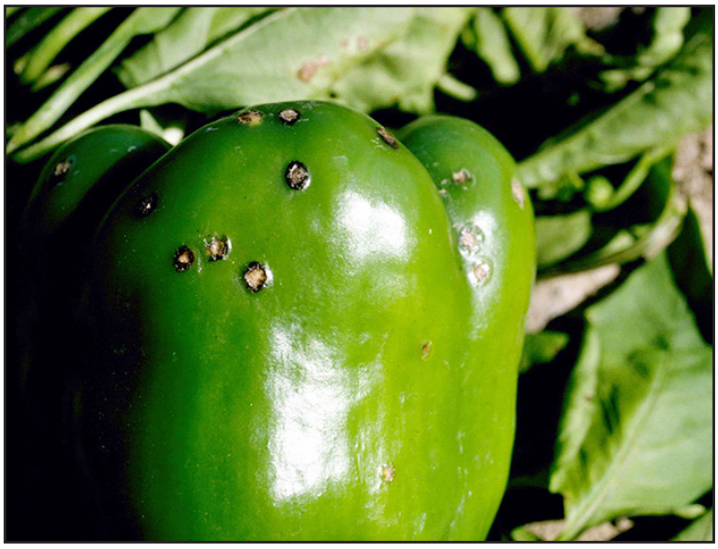
Introduction

Commercial field production of organic peppers allows growers to yield premium crop prices. However, numerous plant pathogens can cause disease, resulting in plant damage and yield loss. Applications of fungicides and bactericides are often necessary to limit the impact of plant diseases. These products provide the greatest efficacy when applied prior to disease onset. Growers should develop a preventative spray schedule for each crop and season to limit the impact of diseases. Organic growers will rely on specific products to maintain certifications or be able to market produce as organically produced. This document provides information on the timing of the most common pepper diseases, as well as an example spray schedule. Fungicides recommended here include a few of the most common products; a complete list of registered fungicides can be found in *Vegetable Production Guide for Commercial Growers* (ID-36) and *Southeast U.S. Vegetable Crop Handbook* (SEVEW); generic products may also be available. Information on OMRI approved products is available at https://www.omri.org/.

Pepper	
Disease	**Time Period**
Bacterial spot	May – Sept
Pythium root and crown rot	May – Aug
Rhizoctonia root and crown rot	May – Sept
Southern blight	July - Aug

Timeline of common and important diseases occurring on pepper.



Bacterial spot, shown here on fruit (*left*) and leaves (*right*), is a common pepper disease occurring in Kentucky production.

Disease Management for Organic Field Peppers

GENERAL NOTES

The following includes an example of products; this list is not comprehensive. A complete list of fungicides and their efficacy can be found in in *Vegetable Production Guide for Commercial Growers* (ID-36) and *Southeastern U.S. Vegetable Crop Handbook* (SEVEW). See Additional Resources section.

Always read product labels for specific use instructions. The label is the law.

PREPLANT

Rotate out of pepper for at least 3 years, especially for sites with a history of soil-borne diseases. Space plants for maximum air circulation. Follow cultural practices (rotate crops, improve drainage, select resistant cultivars, practice sanitation).

TRANSPLANT (Early May)

Apply LalStop K61 or RootShield Plus at transplant if field has a history of Rhizoctonia root rot or if damping off disease emerges. Apply LalStop K61 or Obtego if Pythium root rot emerges.

VEGETATIVE GROWTH (Approximately mid-May through late June)

Space plants for increased air circulation. Practice good sanitation (e.g. remove diseased or senescing tissue regularly, remove clippings and debris from field). Prune to maintain good air circulation.

Application Timing *Weeks after transplant*	**Application Notes**	**Fungicides/Bactericides[2]**	**Target Diseases**
Week 1 to 4	Use bactericides preventatively, before disease develops. Applications should be made every 1 to 2 weeks, especially if weather is hot and wet. A SAR inducer can help plants build immunity.	Copper[3,4]	Bacterial spot
		Cease/Stargus	
		Leap	
		SAR inducer Actinovate/Regalia	

HARVEST (Approximately July - Mid-August)

Avoid working in fields when foliage is wet. Clean tools between fields. Sanitation is critical.

Application Timing *Weeks after transplant*	**Application Notes**	**Fungicides/Bactericides[2]**	**Target Diseases**
Week 5 to 12	Use bactericides preventatively before disease develops. Applications should be made every 1 to 2 weeks.	Copper[3,4]	Bacterial spot
		Cease/Stargus	
		Leap	
As needed[1]	Applications should be made every 1 to 2 weeks.	RootShield Plus	Rhizoctonia root & crown rot
		LalStop K61	
As needed[1]	Applications should be made every 1 to 2 weeks.	OSO	Southern blight
		Obtego	
As needed[1]	Applications should be made every 1 to 2 weeks.	Cease/Stargus	Anthracnose
		Copper[3,4]	
		OSO	

[1] Application necessary when diagnostic results confirm presence of disease or if field has history of disease.

[2] See SEVEW Table 3-51 Biopesticides for alternative products. (Note: This production guide is revised annually and location of this information could change.)

[3] Copper products can include Badge, Basic Cop, Nordox, or NuCop.

[4] Combining copper fungicides with SAR products like Actinovate, Regalia, and some Bacillus products can enhance efficacy of copper-based fungicides

Disease Management for Organic Field Peppers

HARVEST (Approximately July - Mid-August) *(cont'd)*
Avoid working in fields when foliage is wet. Clean tools between fields. Sanitation is critical.

Application Timing *Weeks after transplant*	**Application Notes**	**Fungicides/Bactericides**[2]	**Target Diseases**
As needed[1]	Applications should be made every 1 to 2 weeks.	Zonix RootShield Plus LalStop K61 Cease/Stargus	Phytophthora blight and fruit rot

[1] Application necessary when diagnostic results confirm presence of disease or if field has history of disease.
[2] See SEVEW Table 3-51 Biopesticides for alternative products. (Note: This production guide is revised annually and location of this information could change.)
[3] Copper products can include Badge, Basic Cop, Nordox, or NuCop.
[4] Combining copper fungicides with SAR products like Actinovate, Regalia, and some Bacillus products can enhance efficacy of copper-based fungicides

Example spray schedule for organic field production of pepper.

Organic Field Pepper		
At Transplant	**Fungicide(s)**	**Target Diseases**
0	LalStop K61 (optional)	SP
Weeks after Transplant	**Fungicide(s)**	**Target Diseases**
1-4	NuCop+OSO	BS
Weeks during Harvest	**Fungicide(s)**	**Target Diseases**
5	NuCop+OSO	A, BS
6	Cease+Leap	BS
7	NuCop+OSO	A, BS
8	Cease+Leap	BS
9	NuCop+OSO	A, BS
10	Cease+Leap	BS
11	NuCop+OSO	BS
12	Cease+Leap	BS

A – Anthracnose; BS – Bacterial spot;
SP – Soilborne pathogens

Disclaimer

Fungicides listed here include a few of the most common products available and were selected to simplify information in this publication. No endorsement is intended nor is criticism implied of similar products that are not named.

Additional Resources

Additional information can be found on the UK Plant Pathology Extension Publications webpage https://plantpathology.ca.uky.edu/extension/publications

- Vegetable Production Guide for Commercial Growers (ID-36)
- Southeastern U.S. Vegetable Crop Handbook (SEVEW)
- OMRI Product Website https://www.omri.org/

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Editor: Cheryl Kaiser, Plant Pathology Extension Support
Photos: Bugwood.org—Howard F. Schwartz, Colorado State University (pepper fruit) and Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo (pepper leaves)