Martin-Gatton
College of Agriculture, Food and Environment
Cooperative Extension Service

Plant Pathology Fact Sheet **PPFS-VG-32**

Commercial Spray Schedule for Field Production of Cucumbers

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Introduction

In Kentucky, cucumbers are common cucurbit crops grown in open fields. Numerous plant pathogens can cause disease, resulting in plant damage and yield loss. Applications of fungicides and bactericides are often necessary to limit plant diseases. Fungicides and bactericides provide the greatest efficacy when applied preventively (prior to disease onset). Growers should develop a spray schedule for each season in order to limit the impact of diseases. This document provides information on the timing of the most common cucumber diseases, as well an example spray schedule. The fungicides and bactericides recommended here include a few of the most common products. A complete list of registered fungicides can be found in the *Vegetable Production Guide for Commercial Growers* (ID-36) and the *Southeast U.S. Vegetable Crop Handbook* (SEVEW); generic products may also be available.

Disease	Time Period
Pythium root rot	May - June
Bacterial wilt	June - Aug
Fusarium wilt	June - Aug
Anthracnose	July - Aug
Cercospora leaf spot	July - Aug
Downy mildew	July - Aug
Powdery mildew	July - Aug

Table 1. Timeline of common and important diseases occurring on field-grown cucumber crops.

Bacterial wilt (*left*) and downy mildew (*right*) may occur in cucumber field production.

Disease Management for Field Cucumbers

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 the *Vegetable Production Guide for Commercial Growers* (ID-36) and the *Southeast U.S. Vegetable Crop Handbook* (SEVEW). See Additional Resources section.

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

PREPLANT

Do not plant cucurbit crops in the same field year after year. Rotate out of cucurbit crops for at least 3 years, especially for sites with a history of soil-borne diseases. Space plants for maximum air circulation. When available, use resistant cultivars (e.g. bacterial wilt or powdery mildew resistant cultivars). Use treated seed when available, to reduce seedling diseases. Follow cultural practices (rotate crops, improve drainage, practice sanitation).

AT PLANTING (Approximately early May)

Apply Previcur Flex or Ridomil for Pythium root rot and damping-off if disease emerges. To prevent bacterial wilt, manage cucumber beetles beginning at seedling stage (See Cucumber Beetles Entfact-311 publication).

VEGETATIVE GROWTH (Approximately early May through mid-June)

Practice good sanitation, such as removing diseased or senescing tissue regularly and removing clippings and debris from the field.

Application Timing *Weeks after planting/transplant*	**Application Notes**	**Fungicides**[2]	**Target Diseases**
Week 1 to 5	Use fungicides preventatively before disease develops. Applications should be made every 1 to 2 weeks. Rotate products between applications to avoid development of disease resistance.	Chlorothalonil	Leaf spots
		Mancozeb	

FLOWERING THROUGH HARVEST (Approximately early July through mid-August)

Application Timing *Weeks after planting/transplant*	**Application Notes**	**Fungicides/Bactericides**[2]	**Target Diseases**
Week 6 to 15	Use fungicides preventatively before disease develops. Applications should be made every 1 to 2 weeks. Rotate products between applications to avoid development of disease resistance.	Chlorothalonil	Anthracnose, downy mildew, leaf spots, powdery mildew
		Mancozeb[3]	
		Fontelis	
		Merivon	
		Pristine	
		Quadris Top	
Week 6 to 15	For severe powdery mildew add an additional product to tank mix	Rally	Powdery mildew
		Torino	
		Vivando	
As needed[1]	Applications should be made every 1 to 2 weeks when risk is high. Monitor disease via ipmpipe.org forecasting site.	Orondis Gold	Downy mildew
		Previcur	
		Ranman	
As needed[1]	Applications should be made every 1 to 2 weeks.	Copper	Angular leaf spot
		Mancozeb	

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

[2] See SEVEW Table 3-53 Biopesticides for alternative products. (Note: This production guide is revised annually, and the location of this information could change with updates.)

[3] Mancozeb is not effective for the management of powdery mildew.

Example field spray schedule for cucumber

Weeks after Planting	Fungicide(s)	Target Diseases
1-5	Mancozeb	LS
Weeks during Harvest	**Fungicide(s)**	**Target Diseases**
6	Fontelis	LS, PM
7	Chlorothalonil	LS, PM
8	Fontelis	LS, PM
9	Chlorothalonil	A, LS, PM
10	Fontelis	A, LS, PM
11	Chlorothalonil	A, LS, PM
12-15	Chlorothalonil + Quintec + Ranman	A, DM, LS, PM
13	Chlorothalonil + Torino + Previcur Flex	A, DM, LS, PM
14	Chlorothalonil + Quintec + Ranman	A, DM, LS, PM
15	Chlorothalonil + Torino + Previcur Flex	A, DM, LS, PM

A - anthracnose; **DM** - downy mildew; **LS** - leaf spots; **PM** - powdery mildew

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

- Cucumber Beetles (EntFact-311)
https://entomology.ca.uky.edu/ef311
- IPM Pipe Cucurbit Downy Mildew Forecasting Website
https://cdm.ipmpipe.org/
- Plant Pathology Extension Publications (UK)
https://plantpathology.ca.uky.edu/extension/publications
- Southeast U.S. Vegetable Crop Handbook (SEVEW)
https://www.aces.edu/blog/topics/crop-production/southeastern-us-vegetable-crop-handbook/
- Vegetable Production Guide for Commercial Growers (ID-36)
https://www2.ca.uky.edu/agcomm/pubs/ID/ID36/ID36.pdf

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