

Cooperative Extension---The Pennsylvania State University

# *Plant Disease Facts*

Department of Plant Pathology  
University Park, PA 16802

## GAILLARDIA DISEASES

Gary W. Moorman, Professor of Plant Pathology

<u>DISEASE</u>	<u>SYMPTOMS</u>	<u>PATHOGEN/CAUSE</u>	<u>MANAGEMENT</u>
Aster yellows	Leaves are yellowed and flowers do not appear normal or of good quality.	Phytoplasma ( bacterial-like organism)	Remove and destroy infected plants. Control leafhoppers early in the season with insecticides in order to suppress spread of the pathogen from weeks to your plants.
Bacterial leaf spot	Areas between veins turn dark brown and collapse. The entire plant may be killed	<i>Pseudomonas</i>	Remove and destroy infected plants. Do not use sprinkler irrigation.
White smut	At first light green spots, some with tan centers, form on the leaves and white spores form on the spots. The leaf spots become dark brown.	<i>Entyloma</i> spp.	Remove and destroy spotted leaves. Apply myclobutanil to protect healthy plants.
Septoria leaf spot	Tan spots containing tiny dark brown to black dot-like fungal fruiting structures form on the leaves.	<i>Septoria</i>	Do not use sprinkler irrigation.
Powdery mildew	White fungal growth develops on the surface of leaves.	<i>Golovinomyces</i> and <i>Sphaerotheca</i>	Apply myclobutanil.
Root and stem rots	Lower stems turn tan to dark brown. Sometimes white webs of fungal growth can be seen.	<i>Pythium</i> , <i>Sclerotinia</i> , <i>Thielaviopsis</i> , <i>Rhizoctonia</i>	Avoid overwatering and do not mound mulch against the plant.
Viruses	Leaves may be distorted or have patches of light and dark green coloration	Impatiens necrotic spot, tomato spotted wilt, or and cucumber mosaic virus	Remove and destroy infected plants. Control thrips (vector of impatiens necrotic spot and tomato spotted wilt) and aphids (vectors of cucumber mosaic).



Smut



Septoria leaf spot

### Active Ingredients and Trade Names of the Chemicals

FRAC Group No.	Risk Level	Class	Active ingredient	REI Interval	Trade names (EPA Reg. no.)
3	2	Triazole	myclobutanil	24	Sythane (707-253), Eagle (62719-417)
4	3	Acylanine	mefenoxam	0	Fenox ME (70252-11-48234)
U	1	Phosphite	phosphorus acid salts	4	Agri-Fos (71962-1-54705)

**Fungicides and Fungicide Resistance Management** -Certain fungicides, usually systemic fungicides, are said to be ‘at risk’ to the development of resistance if they are used repeatedly. See the Risk Level in the above table (1 = low risk; 3 = high risk). The Fungicide Resistance Action Committee has developed a numbering system in which chemicals with the same FRAC Group number have the same mode of action (See <http://www.frac.info/frac/index.htm>). It is recommended that chemicals at high risk be used sparingly and in rotation or mixed with chemicals with different modes of actions (different FRAC number).

NOTICE: THE USER OF THIS INFORMATION ASSUMES ALL RISKS FOR PERSONAL INJURY OR PROPERTY DAMAGE.  
 WARNING! PESTICIDES ARE POISONOUS. READ AND FOLLOW ALL DIRECTIONS AND SAFETY PRECAUTIONS ON LABELS. HANDLE CAREFULLY AND STORE IN ORIGINAL LABELED CONTAINERS OUT OF THE REACH OF CHILDREN, PETS, AND LIVESTOCK. DISPOSE OF EMPTY CONTAINERS RIGHT AWAY, IN A SAFE MANNER AND PLACE. DO NOT CONTAMINATE FORAGE, STREAMS OR PONDS.

Where trade names are used, no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

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