

MANAGING DISEASES IN THE VEGETABLE GARDEN

A PLANT DISEASE is an abnormal growth and/or dysfunction of a plant.

Diseases are the result of some disturbance in the normal life process of a plant.

Biotic diseases are caused by living organisms such as fungi, bacteria and viruses.

Abiotic diseases are caused by non-living environmental conditions, such as too much or too little water, weather, temperatures and salts. The Rocky Mountain region has fewer disease problems than other parts of the country. In Colorado's dry climate, fungi are the most common causes of plant diseases.

Diagnosing a Disease Problem

- Identify the plant affected.
- Identify the problem. Look, read, compare a normal to damaged plant.
- Evaluate if management efforts are warranted for this situation.
- Evaluate management options effective for this disorder.

Management of Biotic Plant Disease

- **Cultural**: Use disease-resistant varieties, when possible.
Use plants that perform well in the local climate.
Place plants in the appropriate environment for optimum growth.
Use appropriate soil, water and nutrient management.
- **Mechanical**: Till in the fall which exposes pathogens, insect eggs and weed seeds to cold temperatures.
Remove infested plant material.
Rotate crops.
Apply mulch - splash barrier to soil pathogens.
Use soil solarization to reduce soil pathogens.
Remove weeds.
- **Biological**: Use compost, compost teas and hyperparasitic products which may reduce pathogens by introducing beneficial microbes.
Encourage beneficial insects. (Our climate is not conducive to beneficial nematodes.)
- **Chemical**: Use as the last resort. Avoid unwarranted use.
Select and use the appropriate **fungicide** for the problem.
Use a product labeled for edible crops.
Read the label. Apply correctly, carefully and at the correct time.
Always spot treat. Avoid blanket spraying.