

MANAGING YOUR GARDEN FOR PESTS



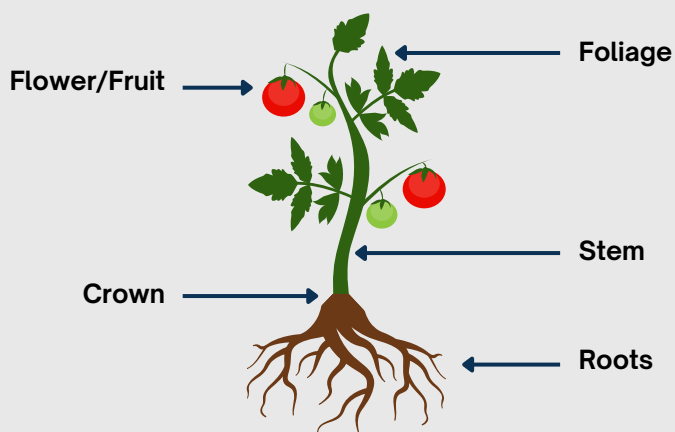
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INSPECTING PLANTS

Monitoring plants regularly from seedling to harvest allows for early detection of any pest or abiotic problems. Closely inspect all parts of the plants for signs and symptoms.



Signs are physical evidence of a pest. This can include fungal structures, insect excrement, shed skin, or the presence of a pest itself.

Symptoms are a plant's reaction to a pest. This can include feeding damage, discoloration, wilting, or lesions.

IDENTIFYING PROBLEMS



Invertebrates are organisms lacking a backbone. Types of invertebrate plant pests include insects, arachnids, mollusks, and myriapods. Invertebrates cause an array of symptoms depending on their feeding style (chewing versus sucking). Some can spread pathogens that cause plant disease.

Plant diseases are caused by pathogens such as fungi, bacteria, viruses, and fungal-like organisms. Diagnosing specific plant diseases takes careful observation of signs and symptoms, or may require specialized diagnostic laboratory tests.



Vertebrates are organisms having a backbone. Types of vertebrate pests that may feed on plants include birds and mammals. The type of damage inflicted by vertebrates varies from chewing/feeding to plant disturbance.

Abiotic disorders in plants can arise from nutrient deficiencies, temperature extremes, abnormal lighting, chemical application, changes in water uptake, mechanical damage, genetic mutations, and more.



TOOLS FOR SCOUTING



Beating Sheet/Tray

Shake foliage over a tray (or sheet of paper) to catch any fallen arthropods for identification.



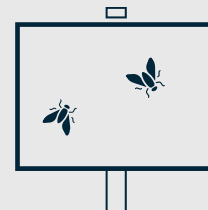
Hand/Magnifying Lens

Examine arthropod pests that may be too small to see with the naked eye.



Phone

Photograph and record findings. Reference reputable online guides or consult with your local extension office for identification.



Traps

Place sticky traps to monitor for the presence of some insect species season-long.

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APPLYING INTEGRATED PEST MANAGEMENT

Once a pest problem has been correctly identified, the next step is to apply appropriate integrated pest management (IPM). IPM is a comprehensive approach to pest control to reduce the status of pests to tolerable levels while maintaining a quality environment. IPM incorporates cultural, mechanical, biological, and chemical control tactics.

Chemical control uses synthetic or organic pesticides. It should be used as a last results.

Mechanical control includes immediate short-term practices such as hand removal, trapping, and utilizing physical exclusion.



Biological control uses the activity of one species to reduce the adverse affect of another (e.g. predators, parasites, and pathogens).

Cultural control includes long-term strategies or tactics such as land and water management, site sanitation, habitat diversification, soil management, and growing tolerant or resistant species.

ADDITIONAL RESOURCES



- **Videos** on the USU Extension YouTube channel include a wide variety of pest management content including pest identification, management, and more.
- **Guidebooks** authored by the USU Extension IPM team and collaborators are available covering topics such as beneficial insects and fruit, vegetable, and ornamental pests.
- **Pest Advisories** are timely email alerts on insects and diseases to look out for in your fruit trees, vegetables, and landscape plants.
- **Fact Sheets** are brief papers authored by USU Extension specialists compiling research and evidence-based information into easy-to-understand content for home gardeners to apply to their own sites.

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