

Integrated Pest Management

Integrated Pest Management (IPM) is a science-based approach used to address pest issues while minimizing hazards to people, other living organisms, and the environment.

[Origins of IPM](#)

Pests may be any weed, insect or disease problem, rodent or microorganism that damage the environment or the aesthetics or profitability of the garden or landscape.

[Invasive Plants, Animals, and Pathogens](#)

[Colorado State University \(CSU\) Weed Guide](#)

IPM is a multi-dimensional process which includes evaluations, decisions, and controls. It is important to accurately identify, monitor and set action thresholds (population size or environmental conditions) for pests before taking any pest control action. At times, a combination of approaches may be necessary; use the least hazardous pest management options available.

[CSU Extension Homeowner's Guide](#)

[University of California IPM for Gardeners and Landscape Professionals](#)

IPM Techniques:

- **Prevention/Cultural Control** - create best growing conditions for plants and natural predators and unfavorable conditions for pests:
 - manage soil compaction, drainage, and nutrients.
 - right plant, right place - select varieties that are best for the location and are pest resistant.
 - water appropriately for plant growth and health.
- **Mechanical Control** - physically remove pests by hand pulling, mowing, weed trimming, seed head removal, propane torch or steam.
[Utah State University Weed Guide](#)
- **Biological Control** – use beneficial organisms such as predators (consume pests), parasites (lay eggs on or in pests) or pathogens (infect pests).
[CSU Extension Insects for Biological Control](#)
[CSU Extension Beneficial Insects](#)
- **Chemical Control/Pesticides** – use when other non-toxic control methods have been exhausted:
 - consider reduced risk pesticides such as botanical pesticides and synthetic organic compounds such as oils, soaps, and detergents.
 - use the least toxic pesticide necessary for the project and follow label directions.
[CSU Extension Horticultural Oils](#)
[CSU Extension Soaps and Detergents](#)