

Integrated Weed Management At Home

Controlling the spread of noxious and invasive weeds on a site may be done without using chemical herbicides or introducing species that may upset the balance of an ecosystem. In fact, a well-designed **integrated weed management system** may, over time, improve ecosystem health on the site it is implemented. You don't have to be an ecologist to improve ecosystem health and manage noxious weeds where you live. These are the foundations of an effective invasive weed management system.

1. PREVENTION

Preventive methods are highly efficient strategies for managing the spread of invasive species. Prevention techniques focus on ensuring that invasive weeds do not enter a site, and that conditions on that site discourage the growth of noxious weeds. Prevention techniques include checking that plants purchased from nurseries are free of weeds, purchasing weed-free seed, and introducing native plants to a site.

Considerations: All the other control methods used on a site qualify as preventive methods if invasive weeds have yet to enter that site.

2. MECHANICAL CONTROL

Mechanical control methods include mowing, weed whacking, and tilling. The regular use of mechanical implements may be especially effective on open lots.

Considerations: Mechanical implements are efficient at inhibiting weed growth and preventing seeding but may be ineffective at breaking up root/rhizome structures and may lead to soil erosion and nutrient loss if used in excess. Improper mechanical control techniques may actually contribute to weed invasion.

3. MANUAL CONTROL

Hand weeding is the primary method of manual control. Plants should be pulled out by their root and disposed of or left to break down in a way that prevents their reseeding. Mulching is another important element of manual control. Natural and recycled materials make good mulches. Straw, grass clippings, wood chips, and cardboard all make effective mulches that improve soil quality over time.

Considerations: Manual weed management efforts are time-consuming but necessary. If the subterranean portions of a plant are not removed from the soil in their entirety the effort will need to be repeated, and in the process new nodes for plant growth may be created.

4. CULTURAL CONTROL

Cultural control is the manipulation of site structure and composition to discourage invasion and to ensure that effects will be limited if invasion does occur. Cultural control methods include (among others): crop rotation, selecting plants that compete successfully with weeds, dense plantings, using drip irrigation to direct water toward specific points on site, and introducing animals to a site that will eat noxious weeds.

Considerations: Cultural control methods abound; it may take time to determine which strategies are most effective on a site.

An integrated weed management system on a site might look like:

1. Tilling the perimeter of a lot and planting native wildflowers while regularly mowing the inside
2. Building a garden with mulched raised beds that are regularly weeded
3. Keeping goats in a yard planted with vining plants that compete with invasive weeds.