

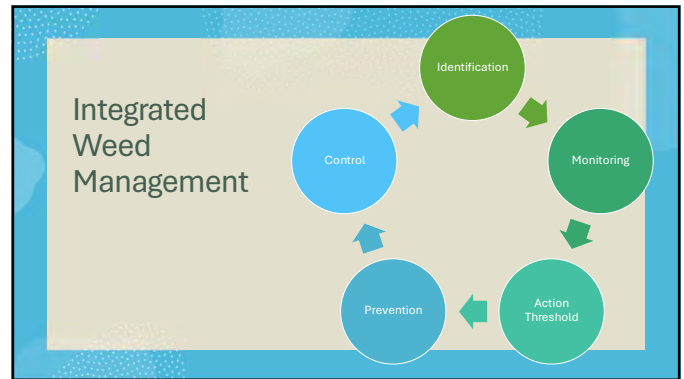
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Taming the Tangle: Practical Weed Control for Flowerbeds & Landscape Areas

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Outline

- The Challenge
- Integrated Weed Management
- Homemade Pesticides
- Untangling the Situation



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Identification



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What makes flowerbeds & landscape areas a hotbed for weed activity?

- Unnatural Setting
- Soil Disturbance
- Frequent irrigation
- Plant Spacing
- Fertilizer/Nutrient Availability



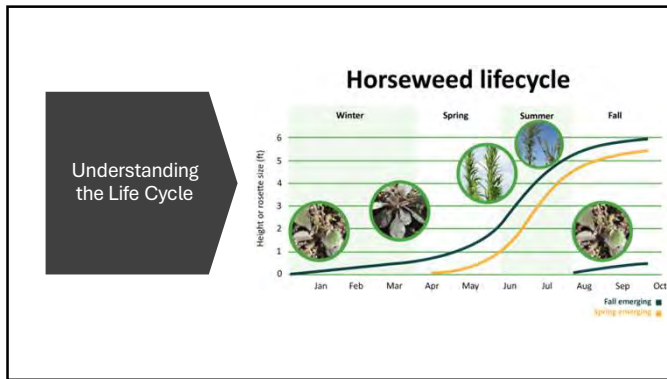
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Plant Life Cycle



- Annual – Life cycle of one year.
- Biennial – Life cycle of two years.
- Perennial – Life cycle of more than two years.

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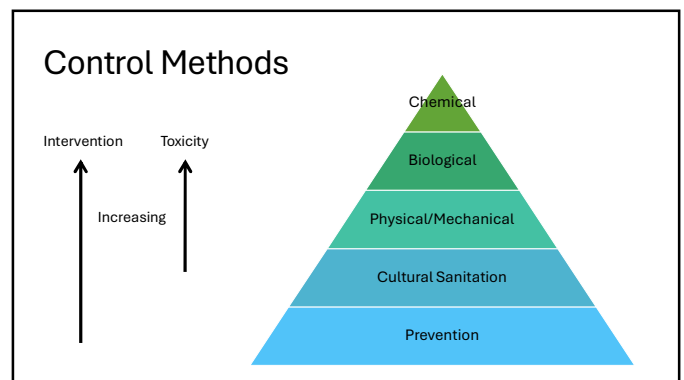


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Identification Resources

- ❖ MSU Extension
 - ❖ Local Office
 - ❖ Schutter Diagnostic Lab
- ❖ Internet
- ❖ Books
 - ❖ "Weed Seedling Identification Guide"
 - ❖ "Weeds of the West"
- ❖ Apps
 - ❖ Montana Wildflowers
 - ❖ Montana Grasses
 - ❖ Plant Snap
 - ❖ Google Lens

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Cultural Control

- **Modifying the environment to discourage, prevent or slow down weeds.**
- Plant densely and/or use competitive plants
- Avoid overfertilizing
- Use drip Irrigation (avoid overhead)
- Reduce soil disturbance
- Use edging (deeper is better)
- Use living groundcover (creeping thyme, juniper, sedum, etc.)
- Mulch

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Mulch

- **Shredded Wood, Bark or Arborist Chips** – Apply 2-4 inches thick.
- **Grass Clippings** – Apply when clippings are dry, 2-4 inches thick. Do not use from lawns treated with chemicals or Weed n Feed.
- **Hay or Straw** – Apply 6-8 inches thick. May contain weed seeds.
- **Paper or Cardboard** – Weigh it down or cover with mulch. Avoid materials with colored ink.
- **Rocks, pebbles, gravel, etc.** – Avoid large stones. Apply 1 inch of material. Solar radiation can be an issue.
- **Landscape Cloth** – Woven materials allow water and air movement. Grasses can still sometimes be an issue. Add organic mulch over the cloth.



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Chemical Control

- Last resort.
- Challenging to use in flowerbeds.
- Use in combination with cultural and/or physical controls.
- Use reduced risk pesticides first, if available.
- May be a better option for tough perennials.



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Physical Control

- **Physically remove weeds.**
- Cultivation
- Hand pulling
- Hoeing
- Cutting
- Flaming
- Solarization
- Use the life cycle of the weed to your advantage.
- Not always effective for perennial weeds.



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Herbicide Options

- Spot spray with a broad spectrum.
- Use a paintbrush for targeted applications.
- Pre-emergent herbicides
 - Prevent seeds from germinating.
 - Activated with water.
 - May need to be reapplied during the growing season.
- Grass herbicides
 - Active Ingredients: Fluazifop and Sethoxydim
 - Most effective on annual grasses



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Biological Control

Use of natural enemies for control.
Not practical for flowerbeds or landscape areas.



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Untangling the Situation



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Homemade Pesticides...

Are they Safe? Legal? Effective?

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Homemade Pesticides – Case Study

- Example: Vinegar
- Active Ingredient: Acetic Acid
- Food grade vinegar – 5% Acetic acid and 95% water.
- Functions like a contact herbicide (does not kill the root system).
- Research shows:
 - 10-20% acetic acid for maximum effectiveness.
 - Most effective against small annual weeds.
 - Not effective against perennial weeds.
- What about additives?
 - Salt
 - Dish soap
- Recommendation: Use a horticulture vinegar (20-24% acetic acid) on annual plants early in the spring.



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Safety of Homemade Pesticides

- Types of Products:
 - Commercial Products
 - EPA approval or official exemption
 - Ensures safety when used properly based on label instructions.
 - Homemade Products
 - Not tested.
 - Food safety is unknown.
 - No label.
 - No guidance on amounts, persistence in the environment or safety precautions.
- No standard, research based, recipes.
- Ingredients can be highly variable.
- Natural does not automatically mean safe.



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Recommendations for Homemade Pesticides

- Legally cannot recommend.
- Often a commercial product that is similar to the homemade version (i.e. horticultural vinegar or insecticide soap)
- Do your research to understand the science.
- Test on a small part of the plant leaf.
- Wear personal protective equipment.



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Legality & Effectiveness of Homemade Pesticides

- Pesticide: Substance intended for preventing, destroying, repelling or mitigating a pest.
- Legal to use on your own property.
 - Exceptions: Are you selling the produce or plants? Are there any environmental restrictions in place for that product?
- Illegal to sell, distribute (even if its free) or apply them on someone else's property.
- Effectiveness is Highly Variable



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Other Weed Control Advice

- Control weeds prior to planting.
- Control the area that is outside of the flowerbed or landscaped area too.
- Recognize when its time to start over.
 - Difficult to control weeds: Canada Thistle, Field Bindweed, Creeping Bellflower, Quackgrass, etc.
- Analyze the landscape design elements. Do they make it more difficult to control weeds?
- Other words of wisdom?



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Questions?

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