

The background of the slide is a photograph of a tree trunk. The bark is dark, rough, and textured. Several green ivy leaves are climbing up the trunk, some overlapping the text. The leaves are bright green and have a characteristic three-lobed shape. The overall scene is outdoors, with some blurred foliage in the background.

Weed Control Techniques and Eradication Strategies

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Control Strategies

- Non-Chemical
- Chemical



Mechanical Control

*... the cutting or
uprooting of weeds*

- Hand pulling
- Weed Wrench



Mechanical Control

- Lopping



Mechanical Control

- Mowing / brush cutter



Mechanical Control

- Mastication



Mechanical Control

Bulldozing



Cultural Control

... the manipulation of the environment by non-mechanical means to control weeds

- Burning



Cultural Control

- Grazing



Chemical Control

Herbicides used for non-crop weed control

- 2,4-D
- Aminopyralid
- Atrazine
- Bromacil
- Chlorsulfuron
- Chlopyralid
- Dicamba
- Diuron
- Glyphosate
- Hexazinone
- Imazapyr
- Pendimethalin
- Sulfometuron
- Triclopyr

Herbicide Classification

Selective: Kills some plant species, but does not damage others

Nonselective: Generally kills all plant species

Herbicide Classification

Preemergence: Applied before weed seed germination. Generally no control of emerged weeds.

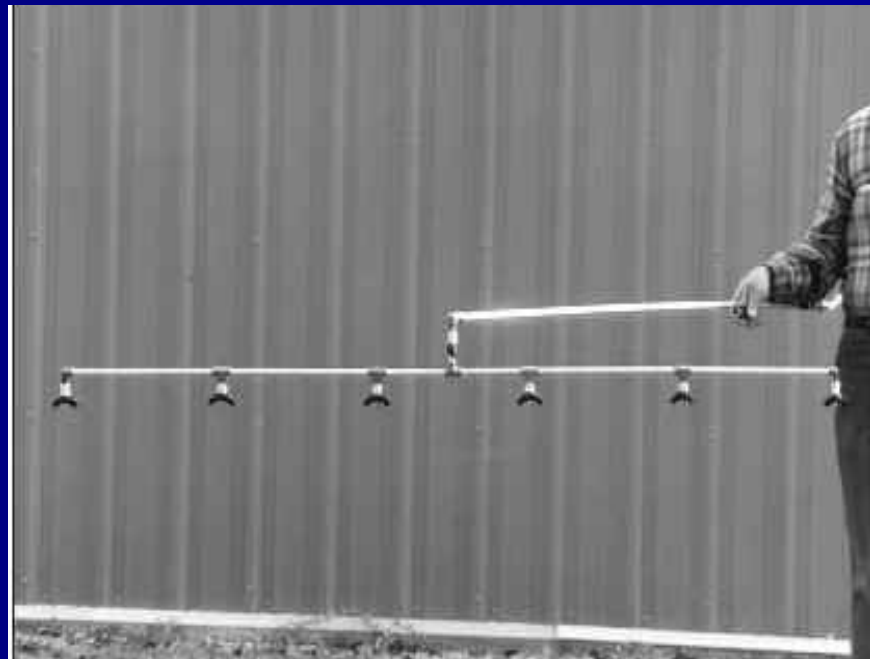
Postemergence: Applied after weed emergence. Generally no control of unemerged weeds.

Application Techniques

- Foliar
 - Spray-to-wet (spot spray or broadcast)
 - Low volume “Drizzle”
- Directed
 - Stem injection
 - Hack-n-Squirt
 - Drilling
 - E-Z-Ject
 - Basal bark
 - Cut stump
 - Wipe-on

Foliar

- Spot Spray or Broadcast
 - Low Concentration / High Volume
 - Apply at 1% - 2% active ingredient
 - Apply at 20-30 gpa
 - All stems and leaves should glisten
 - Avoid runoff



Foliar

- Low volume / Drizzle
 - High concentration/Low volume
 - Apply at 10% active ingredient
 - Apply at 2 gpa
 - Apply as a light sprinkle “drizzle”



Low Volume or "Drizzle"



Low Volume or "Drizzle"



Stem Injection

- Hack - N – Squirt
 - Wound is made in the trunk with a hatchet
 - Herbicide is placed in wound



Hack - N - Squirt Application



Hack - N - Squirt Application

- 1 hack for every 3" trunk diameter
- Apply 1ml of undiluted herbicide/hack
 - Hypo Hatchet Tree Injector
 - Automatic Pistol Grip Syringe



Drilling

- Cordless drill and a 1/2" or 5/8" bit are used
- Drill one hole for every 3" in tree diameter
- Drill at a slight angle
- Place 1 ml of undiluted herbicide in each hole



Stem Injection

- E-Z-Ject
 - Uses a lance to inject herbicide capsules into woody shrubs and trees



E-Z-Ject Application

- Lance is placed against base of plant.
- Metal teeth at base are pushed into the tree.
- With a thrust, brass capsule is injected into tree.
- 1 capsule for every 3" in trunk diameter



E-Z-Ject Application



Basal Bark Application

- Basal portion of the plant is sprayed with herbicide solution
- From ground up 12"
- Use an oil soluble herbicide
- Efficacy improved with the addition of a adjuvant (methylated seed oil)



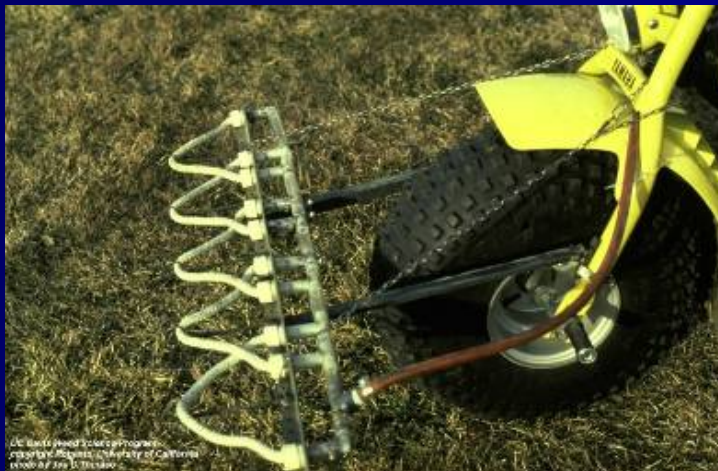
Cut Stump Application

- Tree or shrub is cut down leaving a stump
- Stump is treated with a herbicide solution
- Apply at 10% active ingredient



Wipe-on Application

- Uses a moistened sponge or rope to apply herbicide directly to plant foliage
- Effective on groundcovers, vines, seedlings, and resprouts
- Apply at 10% active ingredient



Which treatment to use?

- Know your weed
 - Annual vs. Perennial
- Timing
- Often one treatment will not provide 100% control
- Use an integrated approach by combining different control strategies

Questions?



