

Landscape Weed Control Basics & Herbicides



Weed Science Basics

Why so many weeds?

Pigweed example:

- ✓ 13,000 – 100,000 seed/year
- ✓ Dormancy allows survival 30 years.
- ✓ Plan: Don't allow seed production.



Weeds are great competitors for

- Water
- Nutrients
- Light



Types of Weeds

- **Broadleaves –**

- Netted venation
- 2 cotyledons
- Taproot
- Showy flowers



Virginia
buttonweed

- **Grasses –**

- Parallel
- 1 cotyledon
- Fibrous roots



Crabgrass

- **Sedges –**
“nutgrass”

- Triangular stems
- Leaves in 3s



Purple nutsedge

Options for Weed Control

- Encouraging ornamental growth – best management practices and mulching.
- Hand pulling/hoeing

✓ **Herbicides**

Which herbicide option ?

**Preemergence or
Postemergence?**

Types of Herbicides

- **Preemergence** – Weed preventor herbicides – controls weeds before you see them.
 - Residual type (short or long)
- **Postemergence** – kills weeds that are present and actively growing.

Preemergence Herbicide Information

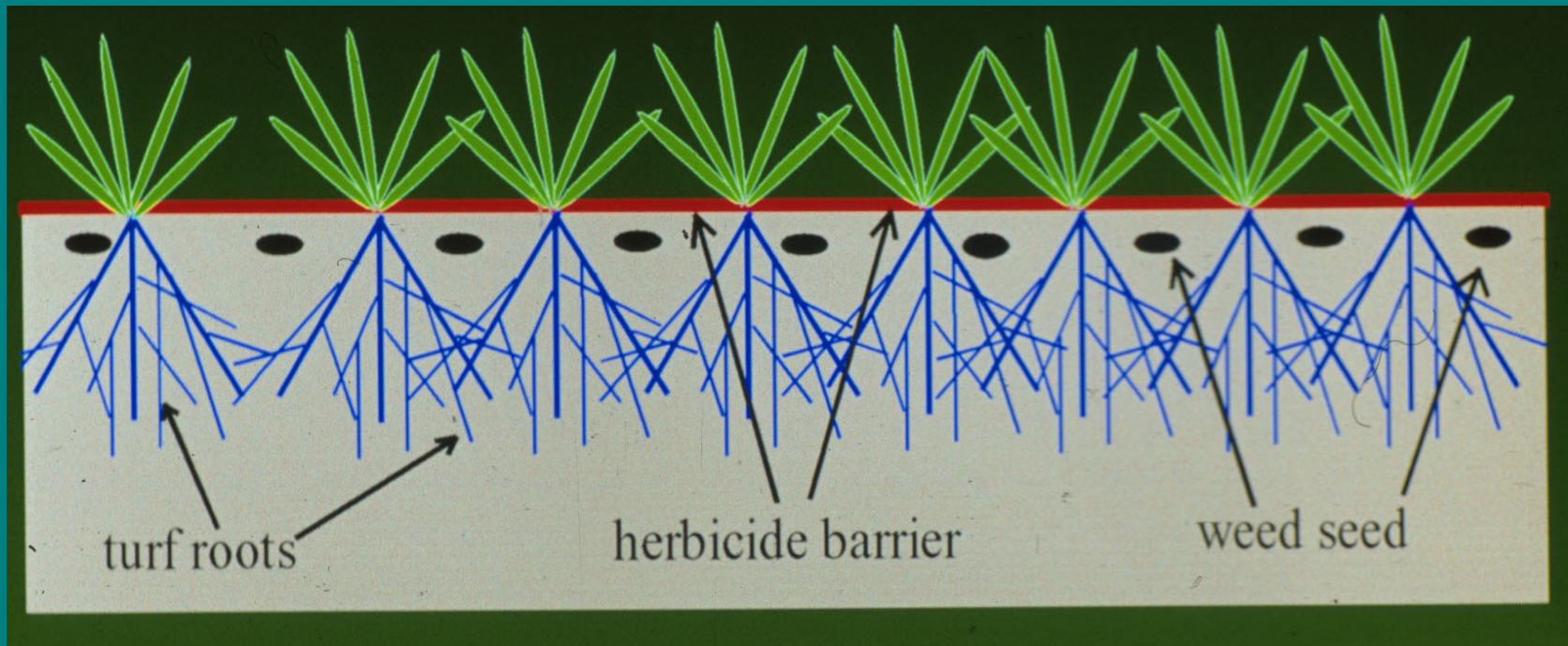
Effective Preemergence Applications

- Apply materials before weeds germinate.
- Adequate rainfall or irrigation is needed to 'activate'.
- Do not expect all season control – reapply
- **Good preemergence program is essential since there may be few post options.**

**✓ Preemergence
Herbicides:**

**basis of weed control in
landscape beds.**

How do preemergence herbicides work?



- ✓ These herbicides provide a lethal barrier at or just below soil surface.

Herbicide Options in Landscapes are complicated...

- **Woody trees/shrubs – several PRE and directed Post herbicide options**
- **Perennial ground covers – several PRE/POST options**
- **Herbaceous perennial beds – some PRE/Post options**
- **Annual beds –fewer PRE/POST options**
- **Mixed plantings – complex – treat areas differently; group tolerant plants.**

Common Landscape Preemergence Herbicides

Pendimethalin

- Pendulum, PRE-M, etc.
- For annual grasses and small seeded broadleaves before they emerge .
- Granular and sprayable formulations.
- Most annual and perennial ornamentals tolerant.

Treflan

- **Trifluralin – sometimes sold as Preen**
- **Annual grasses and small seeded broadleaves before they emerge.**
- **Most annual and perennial ornamentals tolerant.**
- **May volatilize if not incorporated.**
- **Short residual**

Barricade

- Prodiamine ; also sold as FACTOR
- Crabgrass, annual bluegrass, goosegrass
– before they emerge
- Henbit, chickweed, spurge; preE
- Longer residual than most
- Apply over the top of many annual and perennial
ornamentals.

Gallery DF

- Isoxaben
- Kills most annual broadleaf weeds before they emerge .
- Must be sprayed; no granular.
- Excellent for winter broadleaf control and has some activity on chamberbitter.
- Several woody ornamentals, herbaceous perennials, flowers, and bulbs.
- Do not apply in annual beds.

Snapshot

- Isoxaben + trifluralin mixture
- Kills most annual broadleaf weeds plus grasses before they emerge .
- Good broad spectrum weed control.
- Use with several woody ornamentals, herbaceous perennials, flowers, and bulbs.
- Not for annual beds
- Performs better under the mulch

Ronstar

- Preemergence annual grasses and some broadleaves
- No postemerge activity with oxadiazon.
- Good alternative to yellow herbicides
 - Will not inhibit root growth
- Works best on top of mulch – needs light for action.
- Weak on chickweed; Has *Phyllanthus* activity; Preemergence control of stinging nettle.
- Rate: 2.25 to 4 lbs per 1000 sq.ft
- For established perennials

 **Herbicide Placement:**

**on top of the mulch or
under?**

What Works Best ?

- **New beds – apply these under the mulch**
 - Pennant
 - Snapshot
 - Treflan
 - Pendulum
 - Factor

- **New beds – apply these on top of the mulch**
 - Ronstar

- **Apply on either way**
 - OH II (pendimethalin + oxyfluorfen)
 - Rout (oryzalin + oxyfluorfen)

Postemergence Herbicides

Postemergence Facts

- Easier to control small actively growing weeds.
- Most applied as directed sprays.
- Post direct your non-selectives very carefully
 - sometimes impossible
- Consider wiping with non-selective herbicides.
- Grass killers over the top of most ornamentals.
- Overall few options – good preemergence program is a necessity.

Roundup Pro

- glyphosate
- Will kill or injure most plants.
- A systemic herbicide – needs active growth.
- Good on perennial weeds; weak on some vines; OK as 2% on poison ivy.
- Totally deactivated when it hits soil; no residual.
- Visual symptoms in 2- 4 days in growing points; allow 1-2 weeks before disturbing target weeds.
- Find this everywhere – check for generics

Vantage/Poast

- Sethoxydim; follow directions for surfactants.
- Only kills true grasses.
- **Weak on annual bluegrass and torpedograss.**
- **Excellent on most summer annual grasses.**
- **Good on bermudagrass with repeated applications.**
- Can be used over the top of most non-grass ornamentals.
 - Including liriope, daylilies, etc.

Fusilade/Ornamec

- Fluazifop
- Only kills true grasses
- Seems to have better activity on perennial grasses than Vantage; weak on Zoysia.
- Can be used over the top of non-grass ornamentals

Envoy

- Clethodim
- Only kills true grasses.
- Fair activity on young annual bluegrass.
 - Poa spp.
- Can be used over the top of non grass ornamentals.

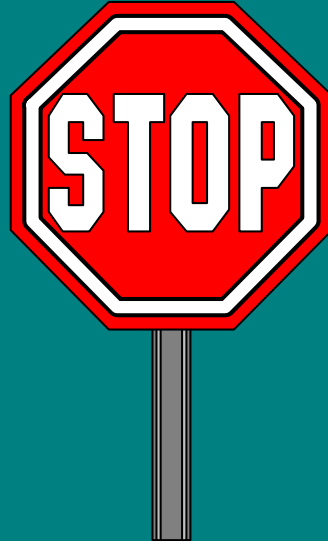
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- **Pretty good on sedges (nutgrass)**
- **Dollarweed control**
- **Suppresses buttonweed (VBW)**
- **Safe on all warm-season turf – mondo, liriope, hawthorne, hollies**

Sedgehammer

- Halosulfuron
 - Formerly called Manage (Gowan Co.)
- Excellent on purple and yellow nutsedge.
- Most cases – do not apply over the top
- Somewhat expensive - relative
- May be applied around all established woody ornamentals.

Before you apply a Herbicide



Read the Label!

Is your crop tolerant?

Weed spectrum ID?

Are you calibrated?

Uniform coverage?

End of Landscape Weed Control Basics & Herbicides

