Weed Control Update

Roch Gaussoin
University of Nebraska-Lincoln
rgaussoin1@unl.edu
@rockinsince57

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Grassy Weeds

- Crabgrass
- Foxtail
- Goosegrass
- Quackgrass
- Bromegrass
- Nimblewill
- Bentgrass*

Broadleaf Weeds

- Dandelion
- Plantain
- Prostrate spurge
- Henbit
- Ground Ivy
- Knotweed

Weeds

- Plant out of Place (Undesired)
- Three Types

Sedges

- Parallel veins
- Triangular stems, solid, without nodes
- Three ranked leaves – arising from each side of the stem

Examples: Yellow nutsedge
Weeds: Life Cycle

- Important to know for management strategy

Weeds are classified as:
1. Annuals
   - Summer annuals
   - Winter annuals
2. Perennials
3. Biennials

“Indicators”

- Knotweed, goosegrass, and crabgrass may indicate compacted soil
- Ground ivy and violet may indicate excessive shade

Use Weeds as “Indicators”

- Legumes (white clover, black medic, birdsfoot trefoil), sandbur, and ground ivy may indicate low nitrogen levels

“Indicators”

- Algae and moss may indicate excess moisture
- Crabgrass and annual bluegrass may indicate low mowing heights

Reasons for Weed Problems in Turf

- Fundamentals (cultural)
- Species selection
- Neglect
- Expectations
- Budget
- Utilize turf where it can be competitive

Cultural Practices for Healthy Turf

- Highest mowing height
- Frequent mowing
- Reduced Irrigation (overwatering)
- Fertilize primarily in the fall
- Manage traffic and compaction
Mowing Height and Rooting Depth

- Shorter mowing heights result in:
  - Decreased rooting
  - Higher maintenance
  - Increased pest problems

Expectations

Effects of N fertilization on weed cover

Effects of mowing height on crabgrass cover
Chemical Control

- **Preemergence**
  - Apply before weeds germinate
  - Very effective on annual weeds

- **Postemergence**
  - Apply to actively growing weeds
    - Contact
    - Systemic

When to apply preemergence herbicides

- Soil temperatures exceed 50°F
- Occurs first:
  - In landscape beds
  - Thinned turfgrass
  - Near sidewalks
  - Better to apply early than late

Managing Annual Weeds

Preemergence Herbicide “efficacy”

- Less than adequate control
- Timing and application rates are correct, so...?

- Reasons for “failure”
  - Poor turf conditions
  - Tough weeds/lot of them
  - High rainfall/irrigation
  - Non-Uniform application
  - Insufficient early irrigation/rainfall
Effects of watering in PRE’s applied in early May in Mead, NE

When to control broadleaf weeds

- Fall is BEST
  - Controls most life cycles
  - Herbicides are more readily translocated to roots
  - Less risk for ornamental damage
  - Turf is in ideal growing conditions to allow it to fill voids
- Spring Control
  - Ester Formulations work better in cool weather but can cause damage to nearby ornamentals
  - Combination products with multiple AI’s
  - Best to time a few weeks before or after flowering
  - New herbicide controls seedheads (Florasulam)
  - Late fall or early spring applications

Effective Use of Preemergence Herbicides

- Start with healthy turf
- Better to apply too early
- App timing is flexible within reason (earlier/split apps)
- Water in
  - Uniform application is essential
  - Label rates
  - Split applications can provide extended season control

Spring application to perennial weeds

Postemergence Weed Control

- Perennials are hardy and difficult to control
- Herbicide uptake and translocation vary
  - Death of the weed may be slow
  - Mature weeds may not be controlled completely
  - Control annuals when young
  - Hit them hard early

Fall application to perennial weeds
Postemergence Herbicide “Failure”

- Weeds wilt and die back but regrow
- Why?
  - Application timing
  - Weed species
  - Weed health
  - Weed age
  - Post-application management of lawn
  - Weather
  - Adjuvants

Effective Use of Postemergence Herbicides

- Start with healthy turf
- Apply to actively growing weeds
- Multiple ai products (we have many options)
- Fall applications

Typical cool-season grass weeds

- Crabgrass
  - PRE
  - PRE/POST
  - POST

- Goosegrass
  - PRE/POST

- Perennial BDLV
  - POST

- April: Barricade
  - Drive
  - Acclaim
  - 3-way
  - 2nd app PRE

- May: Acclaim
  - Tenacity
  - Drive
  - PRE seq

- June: Pylex
  - Speedzone
  - Tenacity

- 3-way: Confront, Turflon, etc.

Yellow nutsedge

- A perennial weed found in both cool- and warm-season turfgrasses
- Tolerates close mowing and competes for water and nutrients
Tubers
- Difficulty to control it is a result of its intensive system of underground tubers, and its tolerance to most herbicides
- Tuber production in yellow nutsedge is highly prolific

• Viable tubers may remain dormant in the soil for multiple years and may sprout repeatedly

• Results of herbicide control of yellow nutsedge are inconsistent

When to control yellow nutsedge
- As early as it was first identifiable – early June
  - Tubers are immature
  - Control tubers that start forming
  - Herbicides are more readily translocated to roots, rhizomes and tubers
- Sequential application
  - Make a second application 3 or 6 weeks after the initial application
  - Sequential application works better than single app
Effect of application timing on yellow nutsedge control when Sedgehammer (1 oz/A) and/or Dissmiss (4 oz/A) was applied on June 3 and/or July 15.

Yellow nutsedge control

- Treat as early as it was first identifiable – early June
- Sequential application with 3 to 6 weeks interval
- Sedgehammer may work better when controlling yellow nutsedge within turf
- Herbicide Rotation
  - Prevent potential herbicide resistance
  - Apply Sedgehammer first when rotating with Dissmiss

Set ourselves up to be successful

- Proper Management
  - Reduces weeds
- Reduce the number of negative factors
  - Research (study)
  - Follow labels
  - Take advantage of new chemistry
- Proper Planning and Training

Finally!! Make Educated Decisions

Weed Control Options in New Seedings

**Start Early Be Aggressive**

- Tenacity (Mesotrione)
  - PRE on bare soil
  - Post over turfed areas
  - Crab + Broadleaves + Nutsedge
- Drive (Quinclorac)
  - Anytime on TF
  - 7 days prior and Post 28 days after emergence on KBG
  - Crab + broadleaves
- SquareOne (Quinclorac+Carfentrazone)
  - Post 7 DAE
  - Crab + Broadleaves
Weed Control Options in Seedings

- Pylex (Tormapzone)
  - Anytime before seeding
  - Grass and broadleaf weeds
  - Goosegrass
- Tupersan (Siduron)
  - Before seeding
- Quicksilver (Carfentrazone)
  - Post
  - Broadleaves

Perennial Weedy Grass Control

- Tall fescue
- Quackgrass
- Windmillgrass
- Bromegrass
- Bentgrass
- Zoysiagrass
- Bermudagrass
- Poa trivialis

Managing Perennial Grassy Weeds

- Difficult to selectively control
- Glyphosate, followed by reseeding or sodding
- Some herbicides can selectively perennial grasses (mesotrione, topramezone)
- Learn to tolerate the different grass species