Responding to Lawn Weed Management Questions

Dr. John Stier
University of Wisconsin-Madison
Environmental Turfgrass Extension Specialist
Presence of Weeds Usually Indicates Underlying Problem

Turfgrasses adapted to the local environment resist weeds best
Good Turf Management

• Mowing
  – 2-3 inch height: 1/3 Rule
  – Sharp blades
• Fertility
  – 3-4 lb N/1000 ft²: Holiday Schedule
• Irrigation
• Turf species
  – Kentucky bluegrass/perennial ryegrass
  – Fine fescue: low maintenance, dry shade
  – Rough or supina bluegrasses for moist shade
Moss and Algae

- Low light
- Restricted air movement
- Poor drainage
- Often compounded by poor management
Why do I Have Weeds in My Lawn Again This Year?

• Correct product used?
  – Age, storage
• Rate?
• Timing?
  – Rain, growing conditions
  – Temperature
    • Low-restrict absorption/translocation
    • Warm to mod. high-best absorption/translocation
    • V. high-dries on surface prior to absorption
• Turf cover & management
Post-Emergent Grassy Weed Control

- Difficult
- Annuals: crabgrass
  - MSMA: retail
- Perennials: tall fescue, bentgrass, quackgrass, nimblewill
  - Glyphosate (Roundup, Kleenup)
Creeping Bentgrass

- Poor quality seed
  - May take years to become noticeable
  - Puffy patch, small-leaved grass
- Fine stolons easily ripped up
- Spray glyphosate 1 ft past perimeter of patch
Pre-Emergent Weed Herbicides

• Form barrier between soil surface and seed
  – Irrigation or rainfall
• Prevent seed germination
  – apply March-April
  – Used for annual grasses, some broadleaves
  – Will stop perennial germination
• Examples: pendimethalin
dithiopyr (some post-emergent)
siduron--OK for seeding
Crabgrass and Quackgrass

- Spring and summer
- Light green color
- Brown after frost
- Short, wide leaves
- Fine hairs on leaves/stem
- Easy to pull plant

- Perennial
- Gray-green color
- Longer, narrower leaves
- Few hairs
- Auricles
- Can’t pull plant
- Rhizomes
Post-Emergent Broadleaf Herbicides

- Apply to visible weeds when actively growing
- Broadleaf weed control: 2,4-D; MCPP; MCPA; dicamba; triclopyr
  - Sold in combinations (e.g., Weed-B-Gon)
  - Dicamba is soil mobile, can damage taxus, junipers, others
Factors Affecting Herbicide Control

• Formulations
  – Esters
    • volatile
    • readily absorbed
    • use during cool temps or hard-to-kill weeds
  – Salts
    • less volatile
    • use during hot temps
    • less smell
Weed and Feed Products

- Herbicide impregnated on fertilizer prill
- Post or pre-emergence
- Post: Stick to leaves?
- Pre: Timing?
• Misnomer: Pesticides intended to be toxic to pests
• EPA regulates toxicity: no significant danger when used properly
• Avoid reliance on non-regulated “biological” or “organic” pesticides
  – May not work
  – No toxicity testing!

“Non-Toxic” Pesticides
Corn Gluten Meal

• Accidental discovery
• Research-based!
• Activity
  – Herbicidal(?)
  – Fertility (10% N)
Corn Gluten Meal Application

- 12-20 lb/M
  - Early spring
  - Late summer
- Irrigate
- Timing critical
  - Short-lived peptides
## Crabgrass Reduction in Field Trials of Corn Gluten Meal on Kentucky Bluegrass

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Corn Gluten Meal for Weed Control

- High use rates (12-20 lb/M)
  - One to two applications annually
- Expensive: $25-$45 per application/M
- Pre-emergent only
- Overseeding limitations
- Fertility effect
Conclusion

• A little herbicide goes a long way if...
• Turf is properly managed!