

# Managing Pasture and Range Weeds



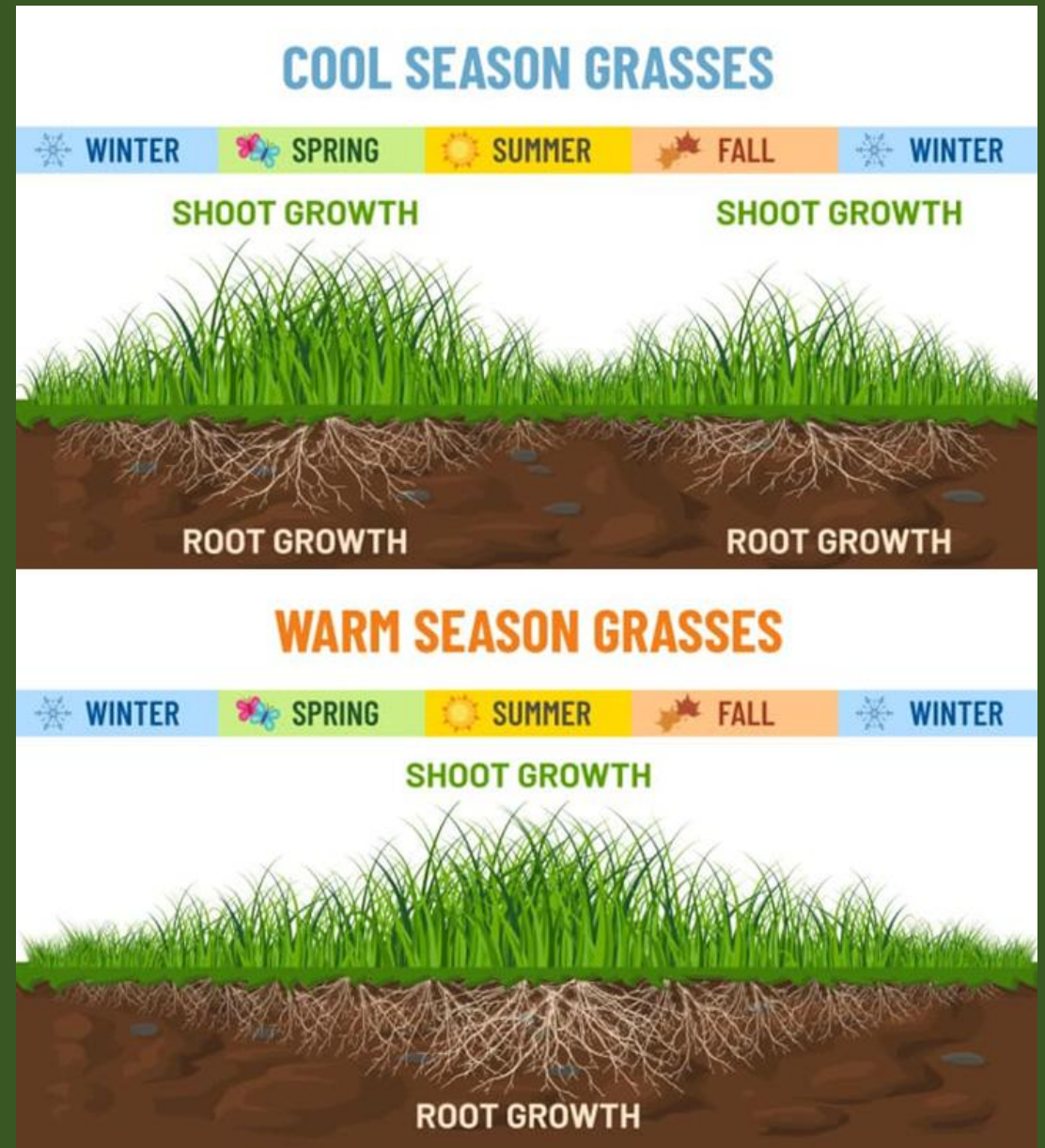
# Outline

- Housekeeping
- Annuals
- Perennials
- Woody plants/brush
- Ending thoughts

# Housekeeping

**Cool-Season (CS)** – grow best in cooler conditions; come up first in the spring (e.g., Tall fescue, Smooth brome)

**Warm-Season (WS)** – grow best in warmer conditions; production peaks in the summer (e.g., Bermudagrass, native grasses)



Credit: Mark Melchione/Plant for Success

# Housekeeping

- **Annuals** (1 growing season) versus **biennials** (rosette, bolt, flower; ~2 growing seasons) versus **perennials** (2+ growing seasons)
- Provide formulated product per acre (e.g., fl oz/A)
  - Foliar applications unless otherwise noted
- The use of trade names is for clarity and does not imply endorsement of a particular product, nor does exclusion imply non-approval
  - Always consult the herbicide label for the most current use requirements!

Cheat

Japanese

Cheatgrass/Downy



Annual Bromes

# Annual Bromes

## Preemergence applications

- Imazapic 4 to 8 fl oz/A (Plateau, Group 2)
  - Apply in the fall in smooth brome but not in tall fescue
- Aminopyralid 3 to 7 fl oz/A (Milestone, Group 4); some smooth brome suppression expected
- Pendimethalin 4 pt/A (Prowl H2O, Group 3)
  - In CS grass stands: Must have at least 6 tillers per plant
  - Water required for activation (~1")
  - Temporary injury in extended cold temperatures or other environmental stress in CSG stands
  - In WS grass stands, apply to established stands after first cutting in fall or spring, do not apply after 100% green up

## Postemergence (early growth)

- Propoxycarbazone 0.9 oz to 1.2 oz/A (Lambient/Olympus, Group 2), granular or foliar application



Yellow

Green

Giant

Credit: Veer Gardening

# Foxtails

# Foxtails

- Similar control options to annual brome species, with timing differences
- Pendimethalin 4 pt/A (Prowl H2O, Group 3), preemergence
  - In CS grass stands: Must have at least 6 tillers per plant
  - Water required for activation (~1")
  - Temporary injury in extended cold temperatures or other environmental stress in CSG stands
  - In WS grass stands, apply to established stands after first cutting in fall or spring, do not apply after 100% green up
- Imazapic 4 to 8 fl oz/A (Plateau, Group 2), pre- or postemergence
  - Apply in the fall in smooth brome but not in tall fescue
  - Apply after 100% green-up in bermudagrass

# Thistles



Musk



Tall



Bull

# Thistles

- Multiple combinations of group 2 (Metsulfuron) and group 4 (2, 4-D; Dicamba, Aminopyralid, Picloram) herbicides
  - Also Overdrive; diflufenzopyr (Group 19) + dicamba (Group 4)
- Generally want to apply herbicides in the spring or the fall
  - Can use aminopyralid products to target rosettes in the fall with air temperature above 50 degrees
- Like other biennials, thistles are most susceptible in the rosette stage before bolting and flowering
- Some products can be applied up through the bud stage (e.g., 2 to 4 oz/A clopyralid + 2, 4-D; Curtail, Group 4)

# Hemp Dogbane

- Triclopyr + fluroxypyr 1 to 1.5pt/A (PastureGard HL, Group 4) broadcast or spot spray
- Fluroxypyr 6 to 12 fl oz/A (Vista XRT, Group 4) to actively growing plants before bud stage
- Other group 4 herbicide combinations can be effective (e.g., 2, 4-D + Triclopyr, Crossbow)
- Established grasses are tolerant to the above treatments, but legumes will be injured



Credit: Sarah Lancaster

# Sericea lespedeza

- Controlled in early season with Triclopyr 1 to 2 pt/A (Remedy Ultra, Group 4)
- Triclopyr + fluroxypyr 0.75 to 1.5 pt/A (PastureGard HL, both Group 4) once plants are 12-15" tall before bud stage
- Metsulfuron 0.5 to 1 oz/A (Escort XP, Group 2) in late season after bud stage
- Several other Group 2 and Group 4 herbicides; note some may stunt growth of CSG



Credit: Mike Haddock



Credit: Greg Houseman

# Common and Western Ragweed

- 1 to 2 qt/A of 4 lb/gal 2,4-D amine or LVE (Group 4)
  - 2, 4-D combined with other group 4 (Dicamba, Picloram, Aminopyralid) or Group 2 (Metsulfuron) herbicides
- 1 to 3.3 fl oz/A aminopyralid + metsulfuron (Group 4 + Group 2; Chaparral)
- Aminopyralid + 2,4-D (Group 4; GrazonNext HL)



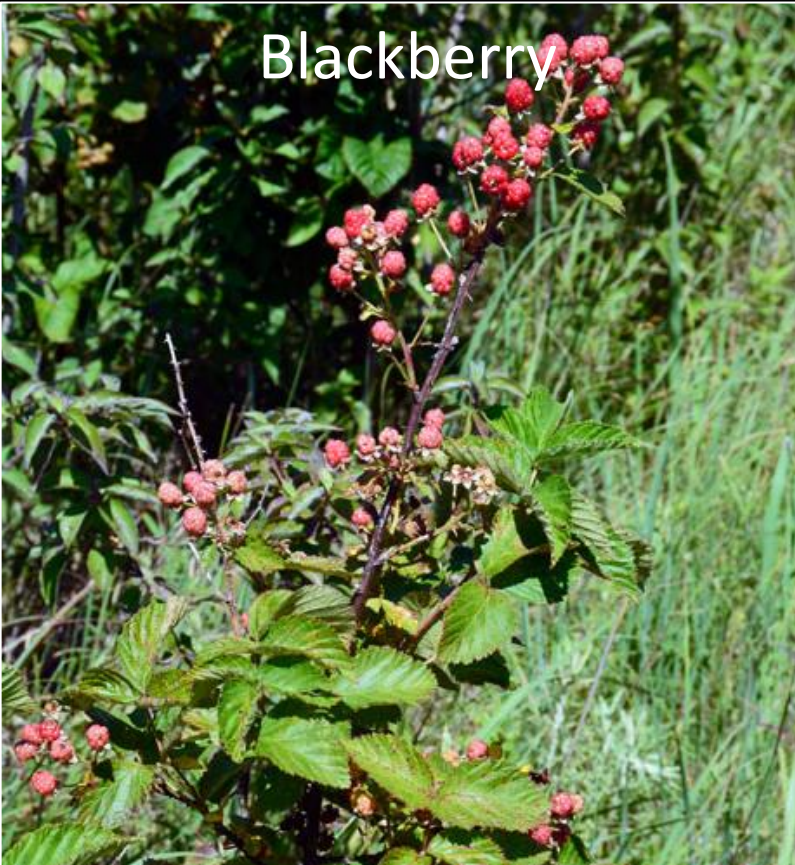
Credit: Mike Haddock

# Johnsongrass

- 1 to 3 qt/A of 3lb ae/gal glyphosate (Group 9)
- 8 to 12 oz imazapic (Group 2; Plateau)
- 1 oz/A nicosulfuron + metsulfuron (Group 2; Pastora)
- Repeated applications typically necessary; typically in areas with sensitive off-target species
- Best managed in combination with mechanical removal



Blackberry



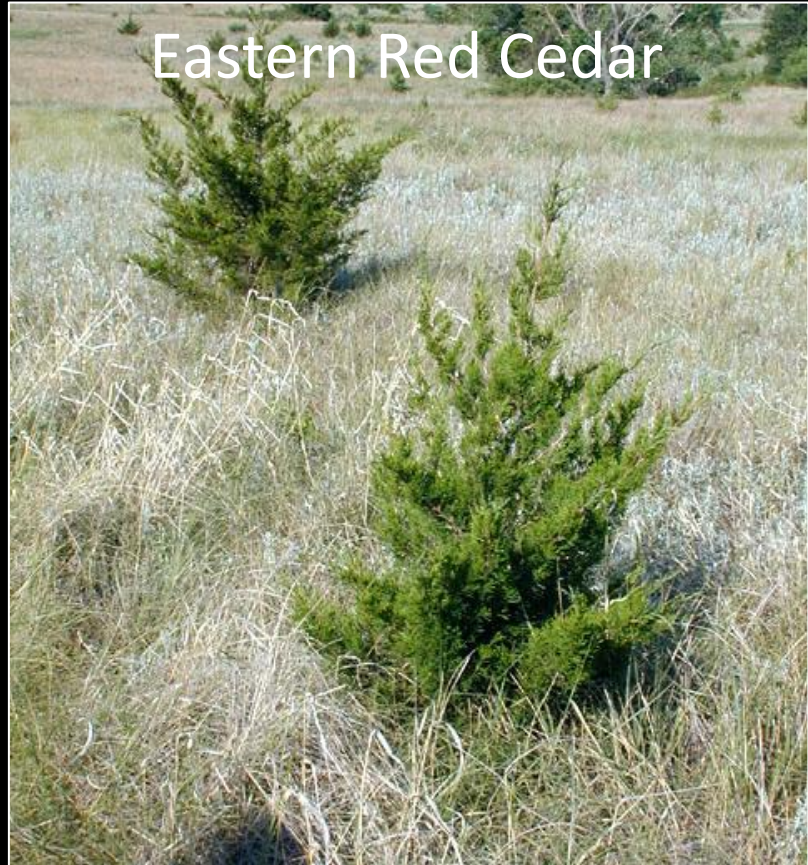
Buckbrush



Rough-leaf Dogwood



Eastern Red Cedar



Osage Orange



# Brush Management

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# Brush Management

Foliar applications (best when actively growing, all group 4):

- 1 pt triclopyr (Remedy Ultra) +
  - 2 qt/A picloram (Grazon P+D)
  - 2 to 3 qt/A 2, 4-D
    - Buckbrush, plums, smooth sumac
- Aminopyralid + fluroxypyr (DuraCor) + 16 oz/A triclopyr (Remedy Ultra)
- Picloram + fluroxypyr (Surmont), 1 – 2% spray solution
  - Blackberry, rough-leaf dogwood, black and honey locust
- See also other combination of group 4 and some group 2 herbicides (e.g., Metsulfuron) herbicides; can be helpful for mixed brush

# Brush Management

## Basal bark applications (all group 4):

- 0.75 to 1.5% triclopyr (Remedy Ultra) in diesel oil or kerosene, Pathfinder II
- 25% triclopyr + fluroxypyr (PastureGard HL) in diesel oil or kerosene
- 1 to 5% aminopyralid (Milestone)
- 1 to 4% triclopyr + 2, 4-D (Crossbow) in diesel oil or kerosene
  - Apply to stems  $\leq 6$ " diameter, wet lower 12 to 15" of stems
  - Can be applied at any time except when snow or water prevent spraying to ground line
  - Generally applied later in the year to avoid off-target effects
- Labeled for control of many woody plant species



Credit: Corteva

# Brush Management

Cut stump or frill applications (all group 4):

- 4% triclopyr + 2,4-D (Crossbow) in diesel or kerosene
- Dicamba
- 10% imazypr (Arsenal) in water
- 10% picloram (Tordon 22K) in water
- Typically used in fall and winter
- Treat immediately after cutting; apply herbicide to cambium near bark



Credit:  
Oklahoma  
State  
Extension



# New Product: NovaGraz (Corteva)

- 2, 4-D + florasulam (Group 4)
- Preemergence and postemergence control of broadleaf weeds on rangeland and pasture
- Preserves white clover and annual lespedeza in pastures
- Relatively short plant-back interval (14 days grasses, 30 days legumes)
- Can suppress certain grasses during periods of stress (smooth brome grass); other established grasses are tolerant up to 24 oz/A once plants have 3 collared leaves
- Apply when weeds are actively growing with methylated seed oil adjuvant

# Closing thoughts

- Application timing is generally best during periods of active growth for target species
  - Consider dormant and preemergent applications that make sense
- Biennials (e.g., thistles) are best treated with herbicide when in the rosette stage
- Keep on top of perennials – multiple applications often necessary
- Consider integrated pest management (IPM) strategies when possible for best control outcomes
  - Burning, mowing, haying, etc. to remove standing biomass that can reduce efficacy
  - Allow sufficient time for regrowth for follow-up applications

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# Old-World Bluestems

# Old-World Bluestems

- Timing:
  - Introduction and outline – 2.5 mins
  - Per plant (aim for 12 to start)
    - 45 second ID and intro
    - General herbicide application instructions (3 minutes)
      - Timing and phenology
      - Note growth stage as necessary
      - Spot and broadcast instructions, as applicable

- Outline:
- Overarching issues
  - Identifying weeds among desirable species
  - Avoiding off-target effects
- Indicated timing with icons?
- Note herbicide groups and Ais
- ~~Make note about NovaGraz(sp?)~~
- Herbaceous weeds (grasses and forbs)
  - Sericea
  - Thistles
  - Annual grasses (e.g., foxtails)
    - Windmill grass
    - Bromes (cheat, Japanese, downy brome)
  - Bindweed
  - Johnsongrass
  - Snow on the mountain?
  - Yellow nutsedge?
  - Venice mallow?
  - Black nightshade
  - Amaranths?
  - OWB – not maybe initially an issue
- Brush
  - Ragweed (note Keith's research)
  - Blackberry briars
  - Honey locust
  - Eastern red cedar

# Buckbrush

- CSG:
  - 2, 4-D amine or LVE
    - Actively growing, generally first two weeks of May
    - 7 days grazing deferment
  - Aminopyralid + metsulfuron (Chaparral); see label for application for tall fescue and brome grass precautions
    - Several use restrictions within 18 months of use
    - Can stunt tall fescue growth; use no more than 2 oz/A and make later applications with growth at least 5-6" growth, tank mix with 2, 4-D (see label for more precautions)
    - Can suppress smooth brome when stressed