ARKANSAS DEPARTMENT OF TRANSPORTATION

Collaborative Implementation of Integrated Roadside Vegetation Management Practices: Maintenance Mows for Monarchs!

Function of Highway Rights-of-way:

- Drains excess water from roadway
- Provides safety
- Provides location for public utilities
- Provides aesthetic
- Provides habitat for pollinators

Integrated Roadside Vegetation Management

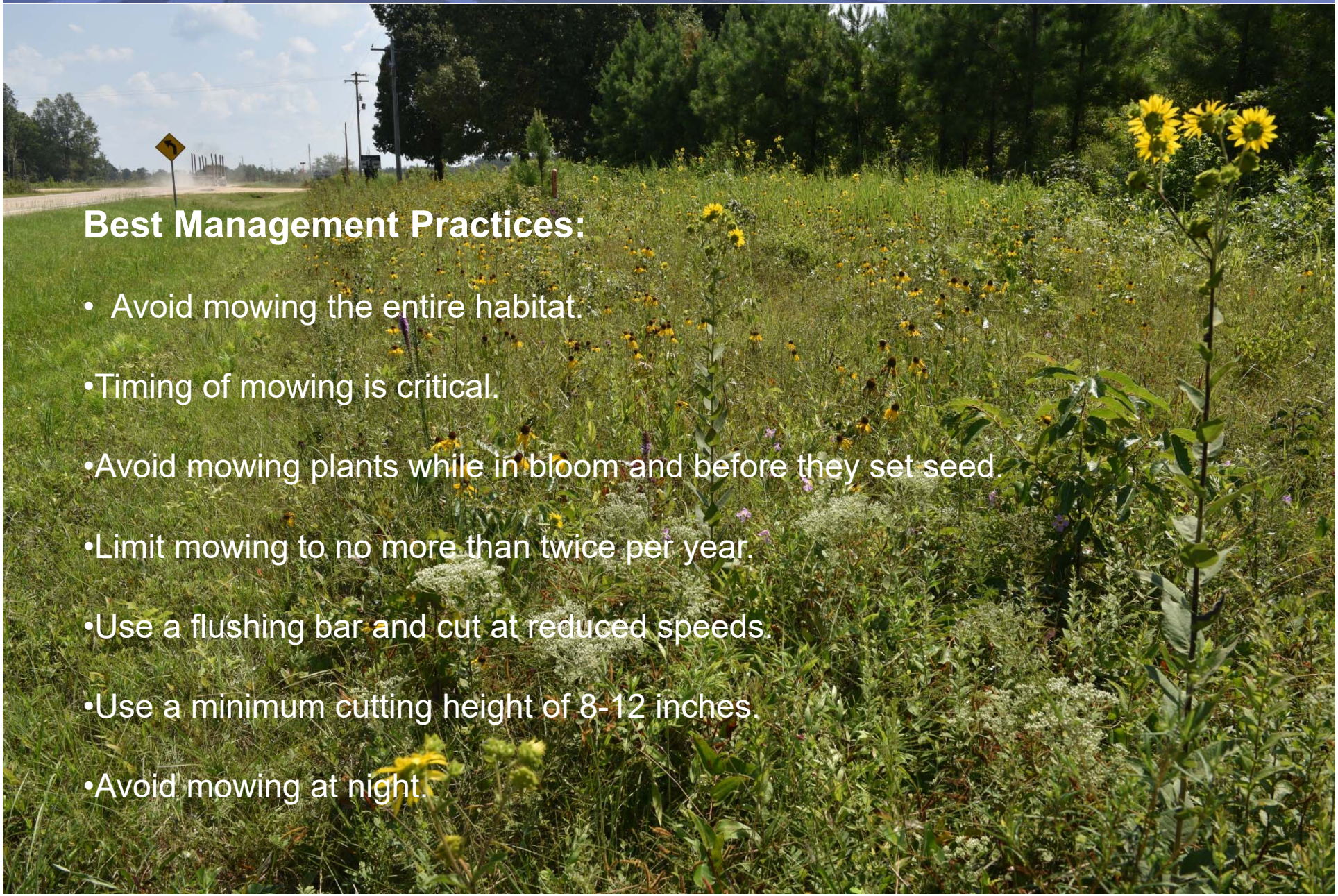
Integrated Roadside Vegetation Management (IRVM):

- Establishes low-maintenance, native vegetation
- Suppresses unwanted vegetation with appropriate methods
- Emphasizes prevention rather than reaction to problems
- Reduces maintenance costs

Reduced mowing and pesticide use

- Most states must mow only to maintain a “clear zone.”
- Plant only low-growing native grasses and wildflowers within the clear zone and eliminate excessive mowing.

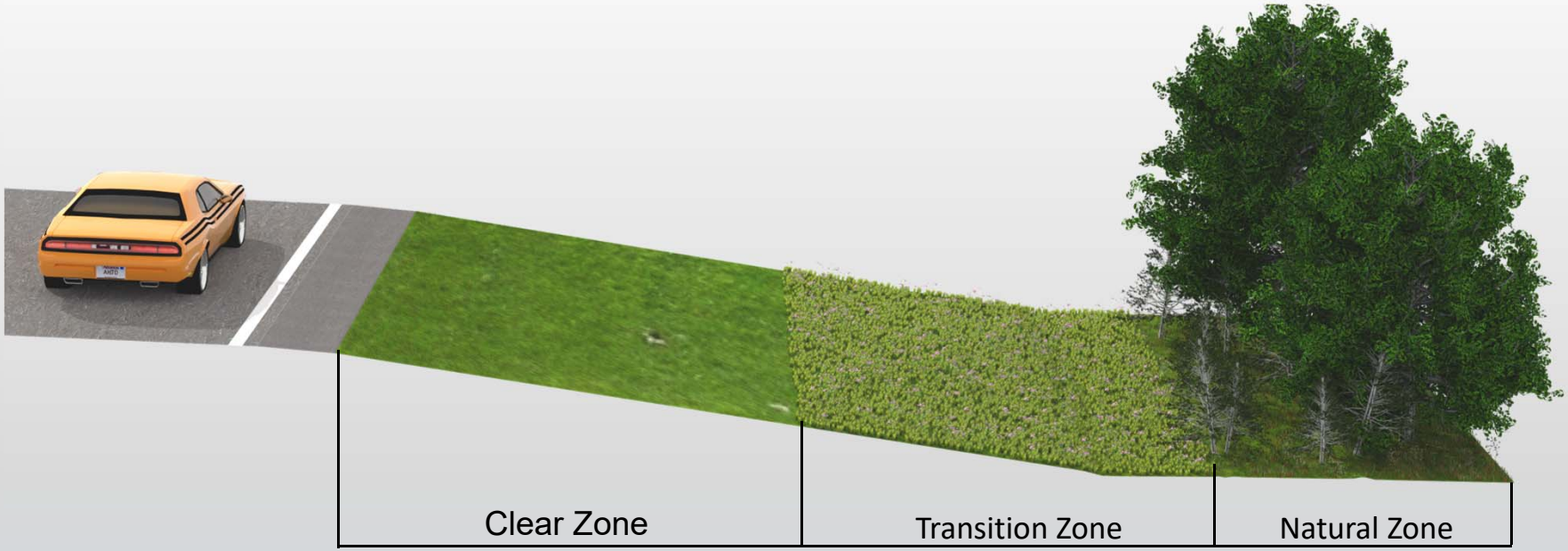
Mowing for Monarchs



Best Management Practices:

- Avoid mowing the entire habitat.
- Timing of mowing is critical.
- Avoid mowing plants while in bloom and before they set seed.
- Limit mowing to no more than twice per year.
- Use a flushing bar and cut at reduced speeds.
- Use a minimum cutting height of 8-12 inches.
- Avoid mowing at night.

Integrated Roadside Vegetation Management



- Mowed 3x per year
- Broadcast herbicide applications

- Mowed once a year, in the fall
- Spot-spray herbicide application of nonnative, invasive species

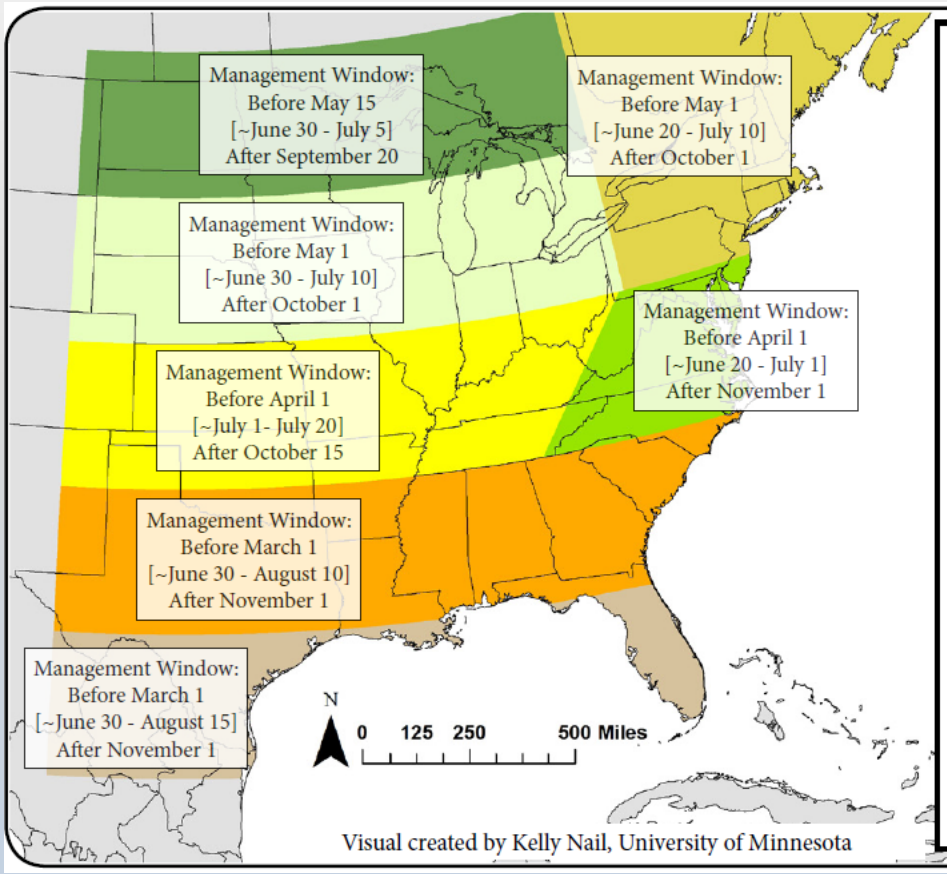
- Where mature trees have become established

Natural Zone
Transition Zone
Clear Zone

Highway 425 in Ashley County.
Clear Zone
Transition Zone

ARKANSAS DEPARTMENT OF TRANSPORTATION

Mowing for Monarchs



Management Windows

These regions, separated primarily by latitude, offer different management windows in spring, summer and fall when mowing or other management may be safer for monarchs.

- Spring recommendations are primarily based on monarch breeding activity.
- Fall windows account for both monarch breeding activity and peak migration activity.
- Options listed in [ ] are recommended only if necessary. These summer mowing intervals may still cause some mortality. The two southernmost regions have been adjusted to avoid the primary nesting season for other grassland species.
- Data are based on long-term trends and variation from year to year may occur.

NOTE: These recommendations are based primarily on monarch breeding and migration activity. Please use these in conjunction with recommendations for other priority species to identify the most appropriate timing for your situation.

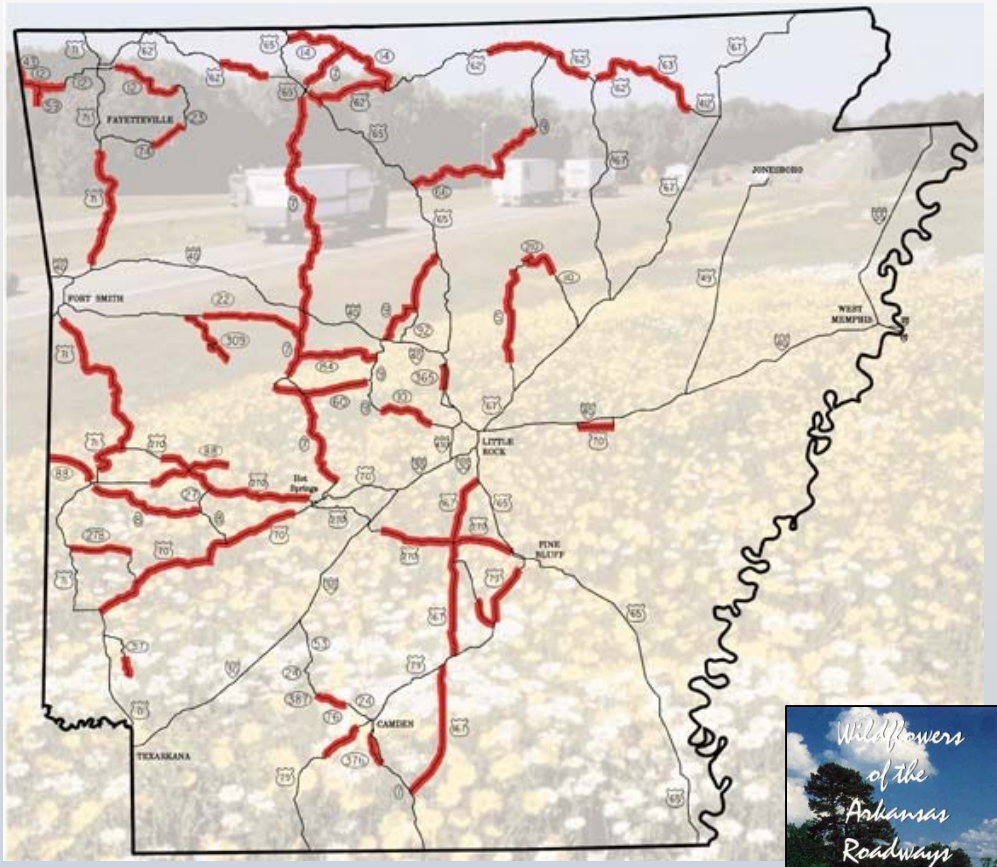
ARDOT's Wildflower Programs

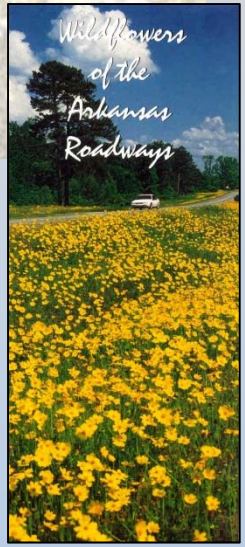
- **Operation Wildflower**
- **Wildflower Signage Program**
  - ❖"Wildflower Area Sponsored by _____" sign.
- **Wildflower Routes**
- **Native Wildflower Area Signage Program**
- **Wildflower Seeding Specifications**

Operation Wildflower Program

Wildflower Signage Program

ARDOT's Wildflower Routes





Native Wildflower Area Signage Program

Standard Wildflower Seeding Specification

Species	Lbs/acre
Blackeyed Susan (*Rudbeckia hirta*)	0.5
Lanceleaf coreopsis (*Coreopsis lanceolata*)	1.0
Purple blazingstar (*Liatris pycnostachya*)	0.5
Purple coneflower (*Echinacea purpurea*)	0.5
Showy evening primrose (*Oenothera speciosa*)	0.5
Tickseed coreopsis (*Coreopsis tinctoria*)	1.0

Special Wildflower Seeding Specification

Species	Lbs/acre
Big bluestem (*Andropogon gerardii*)	1.5
Little bluestem (*Schizachyrium scoparium*)	7
Indian grass (*Sorghastrum nutans*)	1.5
Cereal rye (*Secale cereale*) as a cover crop	100
Lanceleaf coreopsis (*Coreopsis lanceolata*)	4
Blackeyed Susan (*Rudbeckia hirta*)	0.5
Purple blazingstar (*Liatris pycnostachya*)	3
Partridge pea (*Chamaecrista fasisculata*)	3
Butterfly milkweed (*Asclepias tuberosa*)	2
Pale purple coneflower (*Echinacea pallida*)	2
Wild bergamont (*Monarda fistulosa*)	1

District Wildflower Plots

ARDOT's Transportation Alternatives Program

Incorporating wildflower plantings into project proposals provides pollinator habitat too!

- Use native plants with various bloom times
- Include milkweeds, which are host plants for Monarchs

Arkansas Monarch Conservation Partnership

Visit our website at arkansasmonarchs.org for more information!

Candidate Conservation Agreement with Assurances

BEFORE THE SECRETARY OF THE INTERIOR

© Jeffrey E. Keith

PETITION TO PROTECT THE
MONARCH BUTTERFLY (*DANAUS PLEXIPPUS PLEXIPPUS*)
UNDER THE ENDANGERED SPECIES ACT

Clear Zone
Transition Zone

ARDOT's Efforts

- ARDOT adopted IRVM practices
  - ✓ Clear zone
  - ✓ Transition zone
  - ✓ Natural zone
- ARDOT's Wildflower Seed Mix
- ARDOT's Wildflower Programs
  - ✓ Operation Wildflower
  - ✓ Wildflower Routes
  - ✓ Native Wildflower Area Signage Program
- ARDOT's Candidate Conservation Agreement with Assurances

Questions?