MID-TERM CRP LAND MANAGEMENT

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Background

Historically → **Now**

- 33 Million acres nationally
- 460,000 acres in WI
- Cropland set-aside program
- Reduce soil erosion
- Monocultures of grasses
- Control woody vegetation and unwanted weeds

- Policy shift to support wildlife habitat
  - Upland birds
- Increase plant species
- Diversify plant structure

Background

Specifics of new requirements

- Require disturbance to reduce grass dominance
  - interseeding for cool season grasses (smooth brome)

- Disturbance will occur
  - 10 year contracts: 6th year
  - 15 year contracts: 6th and 11th years
  - Renewals: first year

Required management shall only be waived if completing them jeopardizes quality existing cover

Approved management methods

Cool season grasses

- Herbicide + interseeding
- Burning + interseeding
- Disking + interseeding

Warm season grasses

- Herbicides
- Burning
- Burning +interseeding
- Disking + interseeding
- **Mowing**

•Cannot disturb cover during the primary nesting season

-Typically May 15 through August 1

http://www.wi.nrcs.usda.gov/technical/jobsheets3.asp

Approved management methods

Method	Grass	Spring	Summer	Fall
Mowing	Warm only	NO	NO	After 9/1
Herbicide	Cool	4/1 to 5/14	NO	9/1 to 10/1
	Warm	4/15 to 5/14	8/2 to 8/15	NO
Disking	Cool + Warm	4/1 to 5/14	8/2 to 8/29	9/1 to 10/1
+ legume interseeding	Cool (Warm)	4/1 to 5/14	8/2 to 8/29	10/8 to freeze

Approved methods involving fire

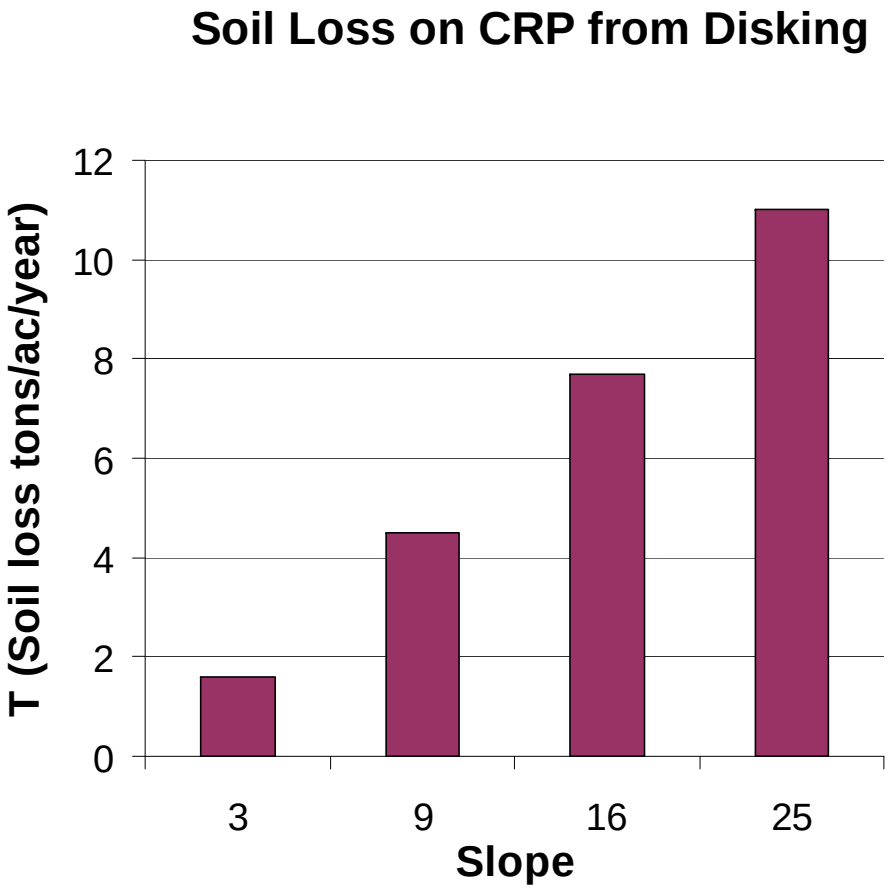
Method	Spring	Summer	Fall
Burning for legumes COOL SEASON GRASSES	4/1 to 5/14		8/20 to 9/30
Burning for early forbs WARM SEASON GRASSES	3/1 to 4/15	**7/16 to 8/10**	11/1 to 11/30
Burning for late forbs WARM SEASON GRASSES	4/15 to 5/14		8/20 to 9/30

Cost-share of management methods

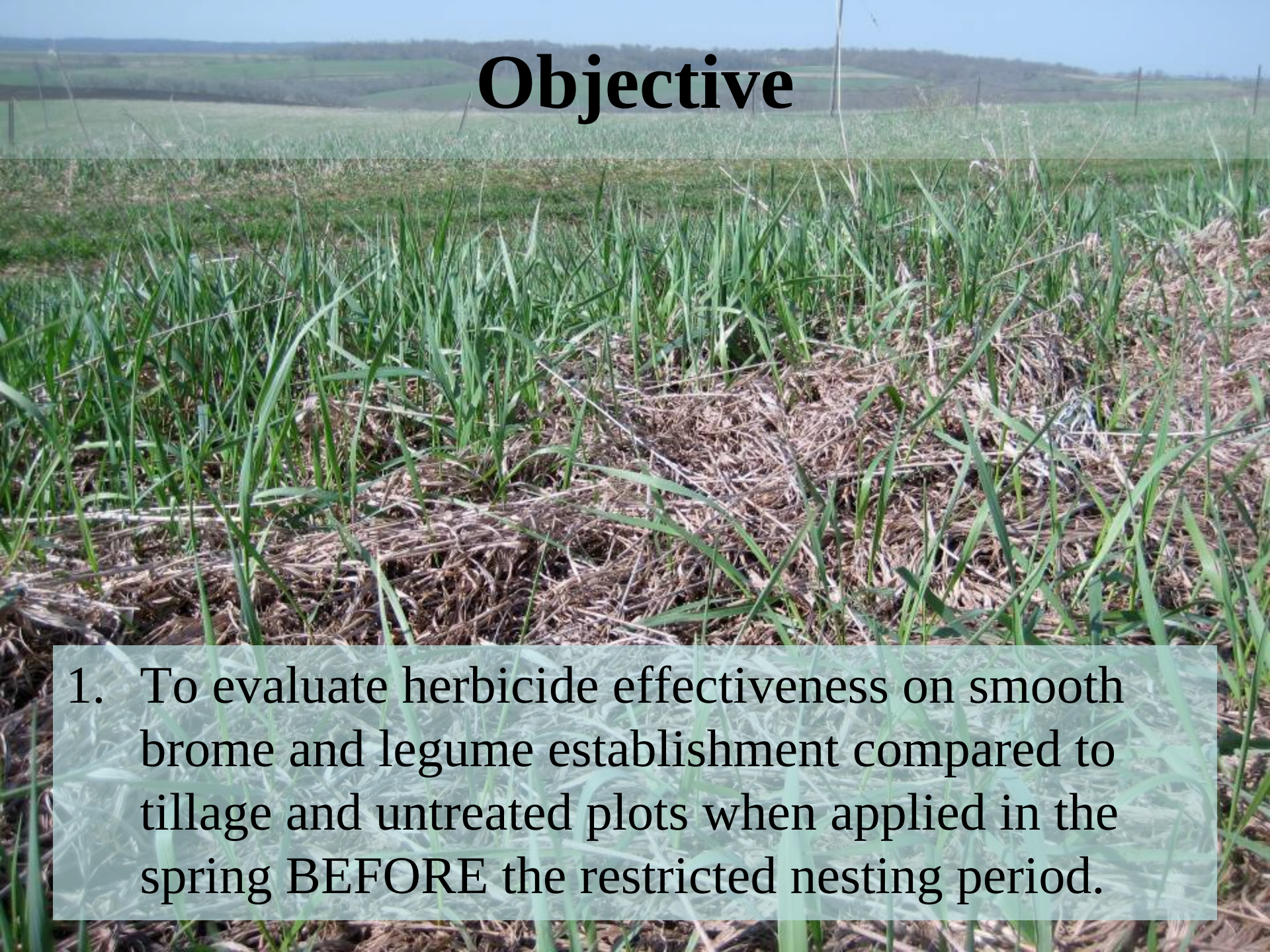
Method	Grass	Cost	Cost-share (50%)
Herbicide+interseeding	Cool	$41/A	$20/A
Disking+interseeding	Cool	$100/A	$50/A
Burning+interseeding	Cool	$124/A	$62/A
Mowing	Warm	$18/A	$9/A
Herbicide	Warm	$21/A	$10/A
Burning	Warm	$84/A	$42/A

Concern for erosion

- Other states have recommended disking as a suppression technique
- RUSL2 results estimate 1-11 tons of soil loss from this technique depending on slope



Objective



1. To evaluate herbicide effectiveness on smooth brome and legume establishment compared to tillage and untreated plots when applied in the spring BEFORE the restricted nesting period.

Methods

- Conducted in SW and Eastern Wisconsin
- Herbicides applied before nesting season
  - 4/29/08 and 5/14/08
- Legumes interseeded in Spring at one site (4/30/08)

Active ingredient	Example Products	Broadcast rates	Restriction for planting legumes
Fluazifop	Fusilade	12, 16 & 24 fl oz/a	0 days
Sethoxydim	Poast, Vantage	12, 24 & 36 fl oz/a	0 days
Glyphosate	Roundup	0.5, 0.75 & 1.0 lbs ae/A	0 days

Differences between treatments

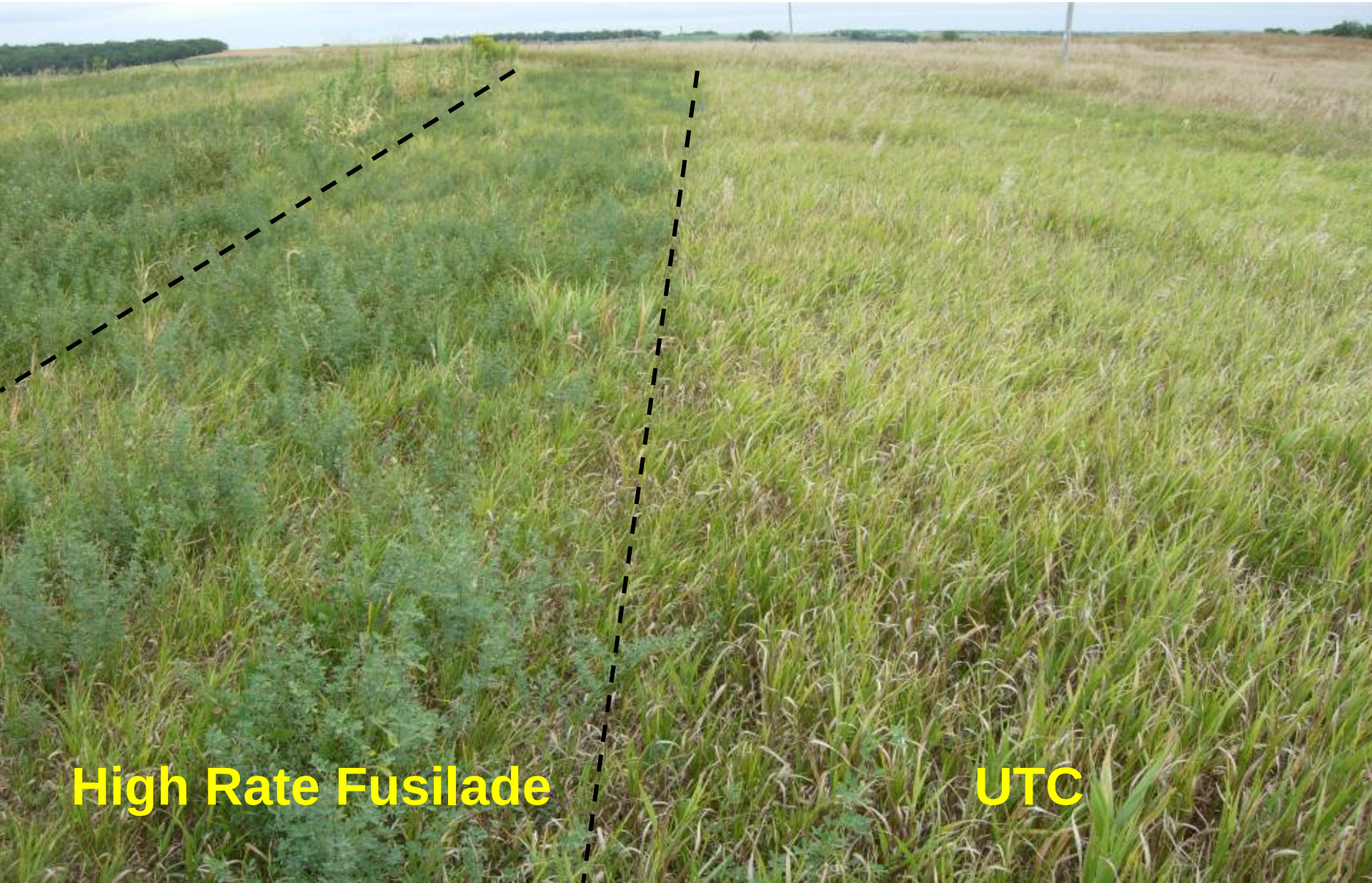
Trt No.	Treatment Name	% Smooth Brome Cover Fall	
		SW	East
1	Fusilade (12 fl oz)	71	**14**
2	Fusilade (16 fl oz)	76	**6**
3	Fusilade (24 fl oz)	66	**5**
4	Poast Plus (12 fl oz)	89	32
5	Poast Plus (24 fl oz)	84	45
6	Poast Plus (36 fl oz)	85	**16**
7	Roundup (0.50 lbs ae)	**33**	**9**
8	Roundup (0.75 lbs ae)	**26**	**13**
9	Roundup (1.0 lbs ae)	**22**	**22**
10	**UTC**	**87**	**32**
11	Disking	62	**20**

Differences in alfalfa establishment

Trt No.	Treatment Name	Alfalfa % cover 127 DAT
		SW
1	Fusilade (12 fl oz)	12
2	Fusilade (16 fl oz)	18
3	Fusilade (24 fl oz)	28
4	Poast Plus (12 fl oz)	5
5	Poast Plus (24 fl oz)	3
6	Poast Plus (36 fl oz)	9
7	Roundup (0.50 lbs ae)	**48**
8	Roundup (0.75 lbs ae)	34
9	Roundup (1.0 lbs ae)	**55**
10	**UTC**	**2**
11	Disking	20

Glyphosate vs. High Rate Fusilade

Alfalfa establishment with fusilade



Research Conclusions

- All methods were effective in establishing a more diverse plant community.

- Glyphosate was the most effective at suppressing populations and allowing for establishment of alfalfa. Did not see rate response.

- Disking suppressed smooth brome early in the year, but did not persist and increase the potential for excessive soil erosion.

Mid-contract Management summary

- Many methods are available
- Plan disturbance (management) considering the following:
  - Desirable plants present
  - Weed species present
  - Erosion potential of the land
  - How timing will affect the result
  - Goals of the land

- Results of management will be **temporary** and are scheduled to be repeated every 5-6 years.


Questions?