

Two Pasture Undesirables – Thistles and Old World Bluestems



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First- The MOST Important Point of Thistle Conversations Is?

– Thistle ID

Missouri Dept. of Conservation



Missouri St. Univ.



Washington St. Univ.



So Let's Have an ID Quiz!

Oklahoma St. Univ.



**Bull Thistle
Canada Thistle
Musk Thistle
Tall Thistle**

**Common/Cutleaf Teasel
Scotch Thistle
Wavy Leaf Thistle
Yellow Spine Thistle**

Washington State Noxious Weed Control Board



Missouri St. Univ.



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Control Options – Depends on Species Present

1. Do nothing (Wavy Leaf and Yellow Spine Thistles) – Native Perennials. Longer lived but slow spreading, rarely forms dense colonies
2. Prescribed burns – (Musk, Tall, Bull, Scotch Thistles, and Teasel) – Invasive Biennials. Burning may reduce presence of viable seed, may reduce presence of rosettes.
3. Mowing – (Musk, Tall, Bull, Scotch Thistles, and Teasel) – Invasive Biennials. Mow after bolting and heads start to form. May rebolt and flower.
4. Herbicides – (Canada, Musk, Tall, Bull, Scotch Thistles, and Teasel) – Invasive Perennial and Biennials. Foliar treatment with a surfactant. Biennials easiest to control in fall or very early spring while rosettes. Canada thistle apply in fall or in spring before flowers bud.



Teton County, WY Weed and Pest Dept.



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Herbicides for Thistle Control in Rangeland

Herbicide	Rate/acre
Aminopyralid (Milestone)	3.0-7.0 oz
Aminopyralid + 2,4-D (GrazonNext, Gunslinger AMP)	1.5-2.0 pt
Metsulfuron methyl (Escort, Cimarron, MSM 60, Plotter)	0.1-1.0 oz
Aminopyralid + Metsulfuron methyl (Chaparral)	1.0-3.3 oz
Dicamba (Clarity, Dicamba XP, Dicamba DMA, others)	0.5-2.0 pt
Dicamba + 2,4-D (Range Star, Weedmaster, Outlaw, Latigo)	1.5-2.0 pt
Picloram (Tordon 22K, Trooper 22K, Triumph 22K, LandVisor 22K)	0.5-1.0 pt
Picloram + 2,4-D (Grazon P+D, Gunslinger P+D)	2.0-4.0 pt

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First- The MOST Important Point of OWB Conversations Is?

Little Bluestem



Yellow Bluestem



Big Bluestem



Silver Bluestem



Caucasian
Bluestem



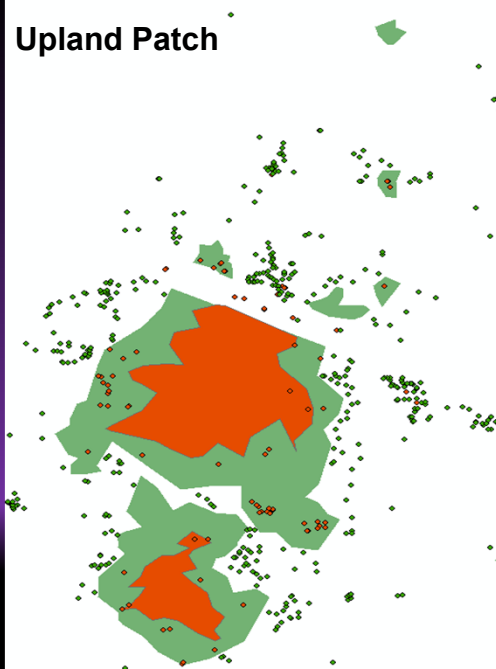
**– Grass ID!
But No Quiz!**

Photos by Keith Harmony and
Jordge LaFantasie





Upland Patch



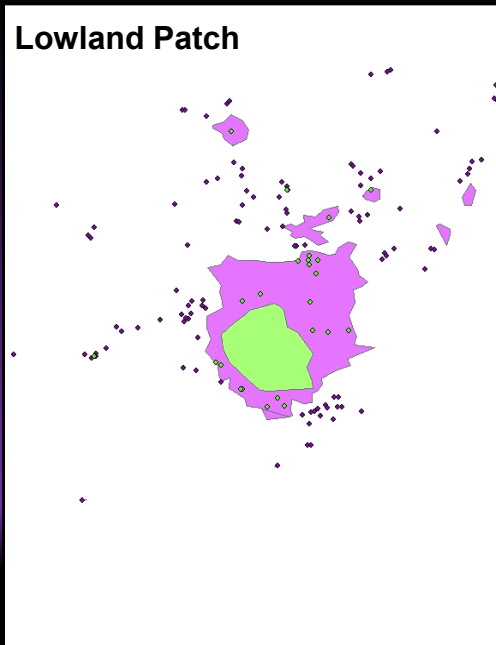
GIS Overlay

- 2003 OWB Patch – 2369 ft²
- 2003 OWB Individuals – 86 plants
- 2011 OWB Patch – 6389 ft²
- 2011 OWB Individuals – 417 plants

16 yrs to 1 acre,
50 yrs to 72 acres

13% annual growth rate!

Lowland Patch



GIS Overlay

- 2003 OWB Patch – 312 ft²
- 2003 OWB Individuals – 24 plants
- 2012 OWB Patch – 1128 ft²
- 2012 OWB Individuals – 106 plants

26 yrs to 1 acre,
50 yrs to 33 acres

15% annual growth rate!

Control Options – Depends on Level of Infestation

1. Isolated Plants – Dig them up by the root OR spot spray with glyphosate at 4-6 pts/25 gallons water (2-3% solution)
2. Small Patches – Spot spray imazapyr at 0.25 lb/acre at 5 leaf stage, treat again 8 wks later at same rate OR spot spray imazapyr at 0.5 lb/acre before heading OR spot spray glyphosate at 2-3 lb/acre while actively growing
3. Large Patches – Spray large areas with imazapyr treatments above for 3 years and overseed OR consider managing as a monoculture below.
4. Monocultures – If untilled, consider managing as an OWB pasture and limit seed head production and dispersal OR if a previously tilled area, disc till and treat with glyphosate at 2-3 lb/acre, seed to alternative crop for 3 years before reseeding back to pasture grasses

Pasture Species Cover When OWB Is Treated with Imazapyr for Three Years – 2017 to 2019

	2016	2019	2020	2019
Species	Daubenmire Cover %			Step-point Composition %
OWB	51.1 a	0.2 b	5.6 c	0.2
Indiangrass	1.9 a	5.0 a	13.5 b	5.9
Big bluestem	0.4 a	4.9 a	18.0 b	4.9
Little bluestem	7.0 a	16.1 a	27.2 b	19.7
Sideoats grama	0.1 a	0.4 a	5.7 b	1.8
Blue grama + Buffalograss	14.1 a	1.1 b	3.5 b	3.7
Western ragweed	0.1 a	17.5 b	8.9 b	21.2
Marestail	0.0 a	25.5 b	5.1 c	35.8

Data from a Kansas NRCS CIG funded research project

**Reseeding to Native Grasses After Treating OWB With Imazapyr for Three Years
– 2017 to 2019**



Reducing OWB in Pasture is a Multi-Year Commitment!



Questions or Comments:

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