MANAGEMENT AND CONTROL OF BUFFELGRASS AND KLEBERG BLUESTEM FOR WILDLIFE

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Study Site: Hixon Ranch
Aggressive Burning Regime

1. 630 ft.
2. yr 1
3. yr 2
4. yr 3
5. yr 4
6. 270 ft.
7. 360 ft.
Introduction

• Exotic Grasses
  • Widespread in S. TX
  • Forbs less abundant
  • Bare ground limiting
  • Insects and grassland birds reduced
Introduction

• Bobwhite densities half
• Avoided by scaled quail
Native Restoration: Objectives

- Previously no answer for native plant restoration in non-native grasses in South Texas
- Fishing for solutions
- Treatment and timing combinations of...
  - Soil disturbance
  - Planting natives
  - Fire
  - Herbicides
  - Mowing
- Flexibility

Kleberg Bluestem
Buffelgrass
Sandy Loam (Buffelgrass)

Saline Clay Loam (Kleberg Bluestem)

Ranch Plots

Pilot Plots

Other Plots

Saline Clay Loam (Kleberg Bluestem)
Deplete seed bank – Plant diverse native mix

Spray Fusilade®

Control

Burn - Spray Fusilade®

Plant Legumes
Legumes + Forbs
Forbs
Spray Fusilade®

Mow - Spray Fusilade®

Deplete seed bank – Plant diverse native mix

Spray Fusilade®

Michael Hehman
Results

- These grass specific herbicides not effective
  - Fusilade®
  - Clincher®
  - Verdict®
- Roundup effective, but requires multiple applications on buffelgrass
- Soil disturbance effective for short term
Results (Plant Forbs + Spray Fusilade)

Longevity after final treatment = 3 years

Cost = $475/ac
Results (Repeat Disk then Plant)

Longevity after final treatment = ?

Cost = $480/ac

Kleberg Bluestem Site
Results (Plow + Repeat Disk)

Longevity after final treatment = ?

Cost = $155/ac
Results (Plow, Repeat Disk, Plant)

Longevity after final treatment = ?

Cost = $415/ac
No Quail in 2008 to 1 Bird/12 Acres
Recommendations

• Soil disturbance and Roundup useful in diversifying exotic stands for a short time
• Native communities can be restored using farming techniques in combination with planting
• Follow-up by spot spraying a must
• Flexibility a must
• Avoid soil disturbance in native plant communities
• Avoid burning in winter
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Questions?

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