



## Prescribed Fire Impacts on Red Imported Fire Ant (*Solenopsis Invicta*) Densities Across Three Ecoregions in Texas

Charles J. Turney, Dirac Twidwell, William E. Rogers; Texas A&M University

The invasive red imported fire ant (*Solenopsis invicta*) represents a considerable challenge to rangeland managers. Managers typically utilize chemical control methods on individual ant mounds as part of their management strategy. We evaluated the potential for managers to locate fire ants by quantifying the density of mounds before and after prescribed fire treatment. Prescribed fires were conducted across three ecoregions of Texas. The three sites include (1) Rob and Bessie Welder Wildlife Refuge located near Sinton, TX along the Gulf Coast ecoregion, (2) Texas A&M Research Center located south of Sonora, TX on the Edwards Plateau, and (3) Harris Ranch located near Breckenridge, TX in the Rolling Plains. Eighteen plots were established at each site and assigned random fire treatments of burned annually, burned once, or unburned. We report our findings after one year of fire treatment. We use these data to determine the efficacy of individual mound treatment, based on the proportion of mounds that are likely to be found within a unit. This study is part of a broader project focused on tracking densities of fire ant mounds in response to long-term application of prescribed fire.

2009. 62nd Society for Range Management Annual Meeting. Paper No. 92-1.