

2001

Wagon Wheel Ranch Demonstration Area

Charles R. Hart, Extension Range Specialist, Ft. Stockton
Raymond Quigg, County Extension Agent - Ag, Upton County
Sam Field, County Extension Agent - Ag, Midland County

SUMMARY

The Trans-Pecos Region of Texas has experienced a severe drought over the last few years. Rangeland conditions have deteriorated to the point where land management techniques are required to expedite the recovery process. This demonstration area was established to demonstrate, on a large scale, land management techniques and their effects on vegetation recovery. The demonstration area is supported by Texas Cooperative Extension, Natural Resources Conservation Service, and the Texas Parks and Wildlife Department.

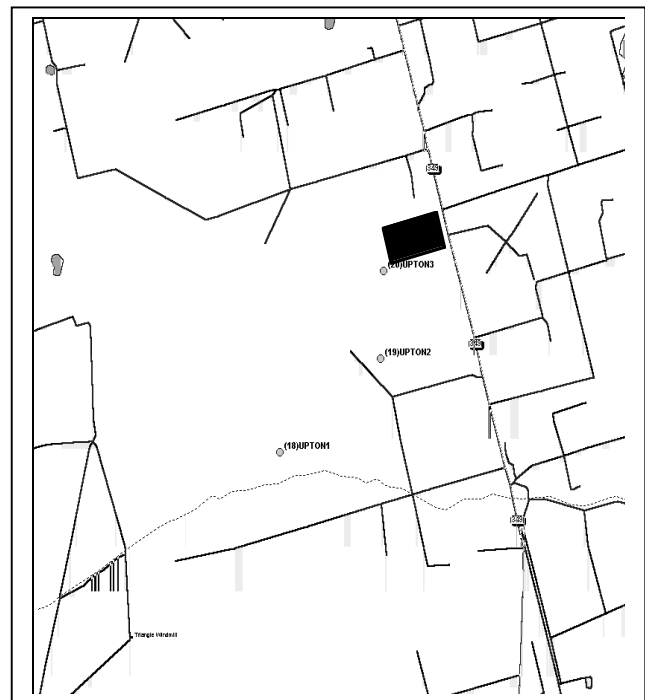
OBJECTIVES

The purpose of this demonstration is to educate land owners about land management techniques available for restoration of rangeland. Severe drought and/or mismanagement can cause substantial reduction in vegetative cover and increase in bare ground. This demonstration area will use large 10-20 acre plots to test and evaluate several land management tools. The first set of treatments planned include selective brush control with both chemical and mechanical means, treatment with a Lawson Aerator, and rangeland ripping techniques.

MATERIALS AND METHODS

The demonstration area is located on the Wagon Wheel Ranch in the north portion of Upton County, near the Midland County line. The area is characterized by flat, desert shrubland. Primary species include mesquite, creosote, tarbush, littleleaf sumac, allthorn, yucca, and spanish dagger. Herbaceous vegetation include burrograss, tobosagrass, doveweed, threeawns, black grama, bristlegrass, and various other species. Figure 1. shows the general location of the demonstration area.

To date, only one treatment has been installed. Each treatment method will be described as it is implemented. Specific treatments planned on the demonstration area include:



1. Individual plant treatment of mesquite with Remedy and Reclaim herbicides
2. Individual plant grubbing of mesquite with a backhoe grubber
3. Aerial application of Spike 20P herbicide for control of creosote and tarbush
4. Land reclamation with a rangeland ripping technique
5. Land reclamation with a Lawson Aerator
6. Control area to remain untreated

Re-seeding may occur with some of the treatments.

Mesquite IPT Treatment. The first treatment established was the individual plant treatment of mesquite. A mixture of ___% Reclaim + ___% Remedy + ___% Blue Dye + ___% surfactant was applied on August 3 and August 20, 2001. An are 10 acres in size was treated using a total of 113 gallons of spray mixture. Mesquite averaged 254 plants/acre and were treated at an average cost of \$0.07/plant. An average of 22 plants were treated with a gallon of spray mixture. The total cost for the project (no labor included) was \$169.22 averaging out to a cost of \$16.92/acre.

RESULTS AND DISCUSSION

No results are available at this time.

ACKNOWLEDGMENTS

Financial and product support is provided by a Texas Cooperative Extension Soil and Water Conservation Grant and Dow AgroSciences. The project is designed and implemented by personnel from the Texas Cooperative Extension (Charles R. Hart, Raymond Quigg, Sam Field), USDA Natural Resources Conservation Service (Charles Anderson, Ray Schimceck, Gary Askins), and Texas Parks and Wildlife Department (Phillip Dickerson, Calvin Richardson).

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.