

Ecological Reference Worksheet*

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Contact for lead author: Phil Smith **Reference site used?** No

Date: 25 October 2002 **MLRA:** 42 **Ecological Site:** Gyp Hills **Applies to** All (write year or AAll@)

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range for poor B good production year and (3) cite data. Continue descriptions on a separate sheet.	ERA Match?
1. Number and extent of rills: Rills can be common on this site. They will usually be linear and increase in frequency as slopes get steeper.	
2. Presence of water flow patterns: Water flow patterns can be common. They are linear due to the lack of vegetation and become wider in areas that are eroded to gypsum layer.	
3. Number and height of erosional pedestals or terracettes: Pedestals and Terracettes that are 1-3 inches in height can be common.	
4. Bare ground from Ecological Site Description or other studies: Bare ground can make up to 48% ground cover according to the ESD for this site. Rocks can make up an additional 24% of the surface area. Outcrops of gypsum are common and void of vegetative growth. All of this potentially can result in large bare areas.	
5. Number of gullies and erosion associated with gullies: It can be common for gullies to originate on this site due to rapid runoff. The area can be highly dissected with V shaped gullies.	
6. Extent of wind scoured, blowouts and/or depositional areas: There should not be any wind scoured, blowouts and/or depositional areas on this site.	
7. Amount of litter movement (describe size and distance expected to travel): Litter that can be greater than 1" in diameter may move distances greater than 20 ft in length.	
8. Soil surface (top few mm) resistance to erosion (stability values are averages B most sites will show a range of values): Soil surface stability values to be reported by Jeff Herrick et. al. Cryptogamic crust when present can stabilize the surface and yield higher stability values. In large bare areas lichens can be common.	
9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): For the Aztec Series in Otero County this sandy loam has an A horizon that can be 0-5 inches thick. It can have a weak medium granular structure and be light gray, (10YR 7/2 dry) or brown (10YR 5/3 moist). The SOM is usually less than 1%.	
10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: The infiltration rates should be highest at bases of plants due to their roots and the soil building processes occurring there. Jeff Herrick will report actual infiltration data for the Aztec series.	
11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): There should not be any compaction layers on this site.	
12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: >>, >, = to indicate much greater than, greater than, and equal to): BOER4 = BOBR > perennial forbs (Nama, flax, stickleaf, penstemon, paperflower) > Coldenia > Spne > Little leaf sumac = fourwing saltbush > other shrubs > other forbs = other grasses. Cryptogamic crust common on site.	
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Gyp grama and gyp dropseed can persist through dry periods. Black grama, however, may exhibit substantial mortality during drought. Coldenia can also be tolerant of drought.	
14. Expected litter amount: Average 12% cover and 0.4 inch deep. (As per ESD)	
15. Expected annual production (this is TOTAL above-ground production, not just forage production): The annual production on this site in years with unfavorable precipitation should be approximately 100 lbs/acre and 300 lbs/acre in years with favorable precipitation.	
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, will continue to increase regardless of the management of the site@ and may eventually dominate the site: Creosote can potentially invade this site.	
17. Perennial plant reproductive capability: Black grama, gyp dropseed, and gyp grama can be highly capable of reproducing vegetatively but their reproduction by seed can be infrequent. The habits of other species are unknown on this site.	

*This sheet can also be used to describe Ecological Reference Areas (ERA=s). For ERA=s, you must also complete the following page and describe status of each indicator. In the far right column, write AYes@ (ERA matches expected for site) or ANo@ (ERA does not match expected for the site). Where the answer is ANo@, explain difference in comments.