

Reference Sheet

Author(s)/participants: Jeff Printz

Contact for lead author: Jeff.printz@nd.usda.gov 701-530-2080

Date: 4-10-2012 **MLRA:** 58 **Sub-MLRA:** C **Ecological Site:** Shallow loamy This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

Composition (Indicators 10 and 12) based on: X Annual Production, Foliar Cover, Biomass

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range of values for above- and below-average years and natural disturbance regimes for **each** community within the reference state, when appropriate and (3) cite data. Continue descriptions on separate sheet.

1. Number and extent of rills: None
2. Presence of water flow patterns: May be visible but short and disconnected
3. Number and height of erosional pedestals or terracettes: None
4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are **not** bare ground):
Bare ground is 20 to 25% consisting of randomly scattered small (< 6 inches in diameter) patches
5. Number of gullies and erosion associated with gullies: None
6. Extent of wind scoured, blowouts and/or depositional areas: None
7. Amount of litter movement (describe size and distance expected to travel): Some movement of small sized plant litter may be observed in association with water flow patterns
8. Soil surface (top few mm) resistance to erosion (stability values are averages – most sites will show a range of values):
Soil surface fragments will typically retain structure indefinitely when dipped in distilled water. Stability class 5 or greater
9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):
Use soil series description for depth, color and structure of A horizon/surface layer
10. Effect of plant community composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff: Combination of shallow and deep rooted species (short & mid rhizomatous and tufted perennial cool- and warm-season grasses) with fine and coarse roots positively influences infiltration
11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): None
12. Functional/Structural Groups (list in order of descending dominance by above-ground production or live foliar cover (specify) using symbols: >>, >, = to indicate much greater than, greater than, and equal to; place dominants, subdominants and “others” on separate lines):
Dominants: Mid, warm-season bunchgrasses >>
Sub-dominants: Cool-season bunchgrasses >
Tall, warm-season rhizomatous grasses = short, warm-season bunchgrasses = grass-likes = shrubs >
Other: forbs
Additional: Due to differing root structure and distribution, Kentucky bluegrass and smooth brome grass do not fit into reference plant community F/S groups
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):
None
14. Average percent litter cover (15 - 25 %) and depth (0.25 - 0.5 inches). Plant litter is in contact with soil surface.
15. Expected annual production (this is TOTAL above-ground production, not just forage production):
Representative value (RV) is 1150 lbs./acre air dry
16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is **NOT** expected in the reference state for the ecological site: State and local noxious: Kentucky bluegrass, smooth brome grass
17. Perennial plant reproductive capability: All species exhibit high vigor relative to climatic conditions. Do not rate based solely on seed production. Perennial grasses should have vigorous rhizomes or tillers.

