CLAYEY RANGE SITE

1. TOPOGRAPHY

   a. This site is on nearly level to gently sloping glacial till plains, lake plains, and terraces of large streams. Slopes are commonly from one to six percent.

2. SOILS

   a. These are deep, well and moderately well drained, moderately fine and fine textured soils. Permeability is slow or very slow. Available water capacity is high.

   b. Soil taxonomic units common to this site are:

      Aberdeen silt loam and silty clay loam
      Nutley clay and silty clay
      Peever clay loam and silty clay loam
      Wahpeton clay and silty clay

      Refer to Section II-A for a complete list of soil taxonomic units and range sites.

3. POTENTIAL VEGETATION

   a. This site is dominated by cool-season midgrasses. Principal species are western wheatgrass, green needlegrass, porcupinegrass, and needleandthread. Other species are blue grama, prairie junegrass, prairie dropseed, bearded wheatgrass, and Kentucky bluegrass. Forb species make up about 10 percent of the total herbage production. Woody plants may occur in small amounts on this site.

   b. Continued heavy grazing by cattle results in a decrease of green needlegrass, needleandthread, porcupinegrass, bearded wheatgrass, and prairie dropseed. Species such as western wheatgrass increase initially and then decrease under this grazing regime. Species that increase are blue grama, Kentucky bluegrass, upland sedges, and fringed sagebrush.

      Further deterioration of the site results in a dominance of short grasses, upland sedges, fringed sagebrush, and undesirable forbs.

c. Approximate total annual production of this site in excellent condition is from 1900 to 2700 pounds of air-dry herbage per acre, depending on growing conditions.

d. A detailed description of the vegetation in excellent condition is as follows:

Relative Percent Composition of the Potential Vegetation

	Mean Productivity	
	lbs/acre	% composition
Grasses		
Western wheatgrass	562	25
Green needlegrass	450	20
Porcupinegrass	225	10
Needleandthread	113	5
Blue grama	113	5
Prairie junegrass Prairie dropseed Northern reedgrass Bearded wheatgrass	112	5
~~Kentucky bluegrass,~~ Other grasses	338	15
Grasslikes		
Penn sedge Needleleaf sedge Other sedges	T*	-
Forbs		
Scarlet globemallow Western yarrow Prairie coneflower Large goatsbeard Silver scurfpea Gray sagewort Other forbs	225	10
Shrubs and half-shrubs		
Fringed sagebrush Western snowberry Prairie rose Other shrubs	112	5
Total	2250	100

* T refers to trace amounts, 2½ percent weight or less.

3--Clayey Range Site

4. DOMESTIC LIVESTOCK GRAZING VALUE

a. This site is suitable for both cattle and sheep. The best season of grazing is summer, although the site has spring and fall grazing value. Clayey range sites grazed during the spring need a periodic rest from grazing to improve and maintain the plant composition.

5. WILDLIFE NATIVE TO THE SITE

a. Big game animals such as the white-tailed deer and antelope obtain forage from this site. Small mammals that use this site are the jackrabbit, red fox, and pocket gopher. Upland birds that are common to this site are the sharp-tailed grouse and mourning dove. Songbirds such as the red-winged blackbird, meadowlark, lark bunting, and chestnut-collared longspur are found on this site. Sites traversed by channels with water attract waterfowl species such as the mallard, pintail, and blue-winged teal.

6. ESTHETIC AND RELATED VALUES

a. This range site is associated with the spacious rolling prairies. Recreational activities common to this site are hunting, hiking, and winter sports.

7. HYDROLOGIC CHARACTERISTICS

a. Runoff on good to excellent condition, properly grazed range is slow. Water transmission rate of the soil is very slow.

8. A TYPICAL SITE LOCATION IN THIS AREA IS AS FOLLOWS