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South Dakota Grasslands, Their Condition and Management

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MARCH 1948

SOUTH DAKOTA GRASSLANDS Their Condition and Management...

ANIMAL HUSBANDRY DEPARTMENT South Dakota Agricultural Experiment Station SOUTH DAKOTA STATE COLLEGE * BROOKINGS

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Fig. 1 Percentage of South Dakota Land in Grass by Counties

Summary

Statewide surveys of South Dakota grasslands have been made in 1940, 1942, and 1946.

The stocking rates presented on the map (center pages) were determined from the 1946 survey, based upon the past ten years' actual use-grazing records from representative farms and ranches. The range and pasture condition method of study was introduced into the 1946 resurvey of South Dakota grassland. The condition approach is much more usable by stockmen and agricultural workers alike than former methods of making grassland inventories.

The 1946 inventory of range and pasture condition shows South Dakota grasslands are near the peak of productivity. Above-average rainfall is largely responsible for this condition. When the precipitation cycle becomes less favorable and dry years come—and they surely will—then only good management of our grasslands can maintain their productivity and prevent the unfavorable conditions of the midthirties.

Further studies and follow-up surveys will be made periodically to keep abreast of changes in condition and stocking rates for South Dakota grasslands.

South Dakota Grasslands Their Condition and Management

Leslie R. Albee, Earle W. Klosterman, William H. Burkitt and Harlan R. Olson¹

Introduction

South Dakota's 28 million acres of grassland comprise one of its most abundant and important resources. This grassland lies in the true prairie of the cornbelt and the mixed prairie of the Northern Great Plains. No definite line separates the true from the mixed prairie (Fig. 1), but the James River may be considered as the dividing line.

During the period of 1942 to 1948, this grassland was in a high state of productivity. The purpose of this circular is to point out methods of judging its condition and to present suggestions for maintaining its high productivity.

Grassland productivity is dependent upon at least five major factors: (1) fertility of the soil, (2) composition of the forage plants in the stand, (3) vigor of the important grasses, (4) amount and distribution of rainfall during the growing season, and (5) the intensity of grazing.

More than 90 percent of the native grassland forage in South Dakota is composed of less than a dozen grasses and sedges. This indicates that our grassland composition is not complex from a production standpoint.

Survey Progress

This statewide study of South Dakota's grassland started in 1940. At that time the State Land Use Planning Committee had requested that the South Dakota Agricultural Experiment Station assemble the available grazing capacity information from various sources and present it in map form.² This was done in an effort to place reliable grazing capacity information at the disposal of the farmers and ranchers. The Experiment Station pooled its resources with those of the United States Soil Conservation Service to make a reconnaissance survey of South Dakota. This resulted in the presentation of a grazing capacity map in September, 1940, and publication of Animal Husbandry Pamphlet No. 30 in July, 1941.

A resurvey was made in 1942 to note the changes in grazing capacity that had taken place because of the higher average rainfall in the western twothirds of the state in 1941 and the entire state in 1942.

Most of the material presented in this circular is based upon a resurvey of the grassland resources of the state in 1946 by the Experiment Station and Soil Conservation Service. The range and pasture condition method of study, which is more useable by the stockmen and technical men alike, was introduced in the 1946 resurvey.

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²James C. Watson, formerly Assistant Animal Husbandmon, who was killed in action in the Pacific Theater of Operation in 1945, conducted the initial survey of 30 counties in eastern South Dakot.

PRECIPITATION FOR SOUTH DAKOTA INCHES 25A 25 24.4 24 23 23 21.8) 22 21 115 20.0] 20 19.2 19.1 19 18 17.5 17.5 177 17.8 17 1 17 16 (15.7) 157 157 15 15 14 14 7 13 13 12 11 10.5 10

1930 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

Fig. 2—Only one year (1932) in the ten year period 1931—1940, inclusive, came up to longtime statewide average of 19.12", while only two years (1943 and 1945) in the six year period 1941-1946, inclusive, fell below the longtime statewide average of 19.12"

20.50" was longtime statewide average through 1930.

19.12" is longtime statewide average through 1946. 15.66" was ten year statewide average 1931—1940, inclusive 21.75" was six year statewide average 1941—1946, inclusive.

Grassland Productivity and Rainfall

To a large extent, climate influences the condition of grassland. Rainfall during the ten year period, 1931 to 1940 inclusive, for South Dakota averaged 15.66 inches per year, or nearly five inches below average. Grasslands were badly depleted during this period, and both forage production and livestock numbers were exceptionally low in 1936. By 1940 some recovery had taken place because forage production increased faster than cattle and sheep numbers.

In spite of all-time high livestock numbers since 1942, the South Dakota average precipitation of 21.8 inches per year from 1941 through 1946 built up and maintained grassland in high production. The accompanying graph of precipitation points out the variation in rainfall over the past 16 years. Never in the history of South Dakota weather records has there been a series of six consecutive years of such high precipitation as this current period.

The average range condition in 1947 was probably at the all-time peak since man started harvesting the forage by livestock, following the Civil War. But these years of high grassland forage production due to high precipitation alone cannot and will not continue. The Northern Great Plains may have another drought. It may be soon. It is

much easier and less expensive to maintain grassland in good to excellent condition than it is to build it up after it has been depleted. The rancher loses income when grassland deteriorates.

Stocking Rates and Grazing Capacities

The stocking rates presented on the accompanying color map (center pages) show the acres (or fraction of an acre) that are needed each month of the grazing season to produce the greatest amount of beef, mutton and wool, and at the same time, keep the forage plants thrifty and the grasslands in a highly productive condition. condition.

The grazing season varies from four to five months in the extreme eastern part of the state and in the Black Hills. In the West River range area it varies from seven to ten months. The seasonal grazing capacity may be obtained by multiplying the stocking rate in acres per month by the length of the grazing season in months. Thus a stocking rate of two acres per animal unit per month for a six month grazing season would indicate a 12-acre grazing capacity for the season.³ A section of grazing land (640 acres) on this basis would provide forage for approximately 53 head of cattle for the six months grazing season.

The stocking rates indicated on the map have been based in each area upon actual grazing use on representative farms or ranches and, therefore, are only the average for each area. Actual stocking rates may vary more within any given area than between two areas in different parts of the state. This is due to the fact that of two grasslands with the same area, one may have greater productivity, or one may be in better condition.

This study shows that a higher percentage of grasslands in the range part of the state are in "good to excellent" condition than in the more intensively farmed parts. The farmer or rancher who depends to a greater degree on livestock production also depends to a greater degree upon his grassland and usually takes better care of it.

It will be noted that the stocking rates in eastern and southeastern South Dakota are much higher than those for the rest of the state. This is due largely to higher rainfall and increased producivity of tame pastures in those areas. Tame pastures are usually established on better land than that on which native grasses occur.

Before the farmer uses the average stocking rates to determine the grazing of any farm or ranch, he should use the condition classification guide for his area and determine the condition of his own grasslands. The stocking rate for a given condition class in any area can then be determined from the guide and applied to his grassland, providing it is of average productivity.

The first step any farmer or rancher, livestock operator, or land owner must take toward grassland improvement and increased forage production is to determine the condition of his grassland whether excellent, good, fair or poor, and whether it is increasing or decreasing in productivity under its present use and management.

Grassland Condition

"Range or pasture condition" is a term indicating the relative ability of grassland to produce livestock and livestock products. It refers to the quantity and quality of forage in relation to the highest productive capacity of the grassland. Grassland in

SAnimal unit equivalents:

1 horse equals 1.25 animal units. I two-year-old equals .8 animal unit. 1 yearling equals .6 animal unit.

¹ cow (with or without calf) coulds one animal util. 1 bull equals 1.25 animal units.

⁵ sheep (with or without lambs) equal one animal unit.

good or excellent condition produces more forage at less cost than grassland in fair or poor condition.

The four grassland condition classes set up for South Dakota are excellent, good, fair, and poor. Excellent condition represents the quantity and quality of forage capable of yielding 90 to 100 percent of its greatest or potential productivity. Good condition will yield 75 to 90 percent; fair condition, 50 to 75 percent; and poor condition, 0 to 50 percent of its potential productivity.

Perennial Plants and Legumes Associated With Good and Excellent Condition

PERENNIAL PLANTS

Common Name	Botanical Name
Aster	Aster multiflorus
Blazing star	Latris punctata
Cinquefoil	Potentilla species
Goldenrod	Solidage species
Goldenaster	Chrysopsis villosa
Green sage	Artemisia dracunculoides
Pasque flower	Pulsatilla patens
Pentstemon (Beard Tongue)	Pentstemon species
Prairie mallow	Malvastrum coccineum
Purple concflower	Echinacea angustifolia
Skeleton weed	Lygodesmia juncea
White sage	
Yellow concflower	Ratibida columnaris

NATIVE LEGUMES

Common Name	Botanical Name
American vetch	Vicia americana
Yellow trefoil	
Breadroot	Psoralea esculenta
Buffalo bean	
Lead plant	
Lupine	Lupinus species
Non-poisonous milk vetch	
Parosela	
Prairie clover.	
Silverleaf scurfpea	Psoralea argbphylla
Wild alfalfa	Psoralea species

These arc some of the desirable perennial plants and native legumes found on good and excellent grasslands in the state. Normally these plants will make up less than 15 percent of the total composition of forage in the grass stand. When the aggregate percentage of these plants exceeds 15 percent, then the condition drops one or more classes.

South Dakota's grassland has been divided into 19 range or pasture areas (See Fig. 3), each of which has its own condition classification guide. These in turn fall into four natural areas in which recommended grazing management and treatment practices are similar.

Each classification guide indicates the area to which it applies, the type of grassland in that area, and the important forage and indicator plants which determine the condition class for a given range or pasture. The amount of erosion, ground cover,



and litter are also considered. The length of grazing season for each area is presented on the classification guide.

A range or pasture condition check sheet is used in making the grassland survey. The check sheets used in western and eastern South Dakota are shown on pages 38 and 39. The percentage of each important forage species is determined and recorded. The classification of important perennial grasses and sedges for pasture or range condition guides, pages 36 and 37, and the list of other perennial plants and legumes, page 8, are helpful in making this determination.

After the total percentages of desirable, less desirable and undesirable plants have been obtained, the condition of the given range or pasture can be determined by comparison with the percentages given on the classification guide for that area. When the condition of the grassland has been determined, the stocking rate, stated as acres per AUM (animal unit month), and the length of grazing season can be read directly from the classification guides. The stocking rates have been set up for both native and tame grasslands. The classification guides for the 19 areas in South Dakota are presented on the following pages.

Management and Treatment Recommendations

When the range or pasture condition has been determined by comparison of the completed field check sheet with the condition classification guide, one is then ready to plan the management and treatment necessary to maintain or build up the condition of his grassland for maximum production.

The generalized recommendations applicable to the 19 areas delineated on the map (Fig. 3) are given in the following four sections.

Recommendations for Areas 1, 2 and 3

Grazing Management Practices for Pasture in Excellent and Good Condition:

- 1. Grazing season-May 15 to October 15 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water.
- 4. Place salt at least 40 rods from water.
- 5. Obtain uniform grazing of available forage throughout pasture.
- 6. Graze important grasses to 90 percent of the annual growth in wet years and 75 percent in dry years. These degrees of use mean leaving a stubble height of at least two inches for blue grass and four inches for the mid and tall grasses in either case because of differences in growth in wet and dry years.
- 7. Provide tame grass and supplemental pastures to extend the grazing period beyond the capability of native grasses.

Treatment of Pasture in Excellent and Good Condition:

1. Mow weed spots to prevent spread.

Grazing Management Practices for Pasture in Fair Condition:

- 1. Grazing season June 1 to October 1 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water.
- 4. Place salt at least 40 rods from water.
- 5. Obtain uniform grazing of available forage throughout pasture.
- 6. Graze current year's forage to 2½ inches stubble height for bluegrass and five inches stubble height for mid and tall grasses. This means grazing forage to about 80 percent in wet years and 65 percent in dry years.
- 7. Provide tame and supplemental pastures to extend the grazing period beyond the capability of native grasses.

Treatment of Pasture in Fair Condition:

- 1. Mow weeds in the bud stage for weed control.
- 2. Reseed bare areas in pastures; protect until established.
- 3. Fence to protect eroding gullies from grazing livestock.
- 4. Construct diversions around gullies.

Management of Pasture in Poor Condition:

- 1. Grazing season June 1 to October 1 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water.
- 4. Place salt at least 40 rods from water.
- 5. Obtain uniform grazing of available forage throughout pasture.
- 6. Graze current year's forage to three inches stubble height for bluegrass and six inches for mid and tall grasses, or give the pasture total protection for one or more years.
- 7. Provide tame and supplemental pastures to extend the grazing period beyond the capability of notive grasses.

Treatment of Pasture in Poor Condition:

- 1. Mow weeds in the bud stage for weed control.
- 2. Reseed bare areas in pastures; protect until established.
- 3. Fence to protect eroding gullies from grazing livestock.
- 4. Construct diversions around gullies.
- 5. Reseed entire pasture to adapted native or tame grasses and legumes if natural recovery is too slow.

	Area l-	-Condition	Classification Guid	de for Pasture Lan	d	
TYPE: True Prairie and Tame Pastures		uth Lincola Cla	n, Southeastern Tur ay and Union coun	Location: Date:	South castern South Dakota October 18, 1946	
				PASTURE	CONDITION	
PLANT S	PECIES ad indicator plants		EXCELLENT 100-90% Productivity	GOOD 90—75% Productivity	FAIR 75—50% Productiv	POOR ity 50% or less Productivit
Desirable Short/Mid/Tall Grasses						
Kentucky bluegrass—Junegrass Big/Little bluestem			70%	45%		
Porcupinc grass—Alfalfa Sidcoats grama—Smooth brome			or	or		
Western/Crested wheatgrass Tall dropseed—Switchgrass			more	more	More	Lcss
Less Desirable Plants					than	than
Blue grama—Buffalo grass Canada wildrye			20%	35% or	50%	50%
Prairie muhly Lowland sedges—Slough grass Many perennial forbs—Sweet eloy	ver		less	less		
Undesirable Plants						
Ragweed-Gumweed-Marestail Pigeongrass-Wild barley			10%	20%	Los	More
Bull thistle—Prickly lettuce			0 r	or	than	than
Buckbrush—Rose Other undesirable plants			less	less	50%	50%
Stocking rate	Native Pastures		.3—.5	.4—.7	.75-1.25	1.25 or more
Acres per AUM*	Tame Pastures	me Pastures		.2—.35	.35—.60	.60 or more
Erosion			None	None to slight	None to moder:	te None to severe
Ground cover	3		Dense cover	(grading	g down to)	Sparse cover
Amount of litter			Abundant litter	(grading	g down to)	No litter
Length of grazing season			4 to 5	months	3 t	o 4 months

-

*Acres per Animal Unit Month,

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v.

	Area 2-Cor	dition Classification Gui	de for Pasture Lan	d	
	Brookings,	Moody, Minnehaha, No	rth Lincoln, Lake,	Location:	Fasi Central South Dalvota
TYPE: Tall Grass and Mix	PE: Tall Grass and Mixed Prairie		ingsbury	Date:	September 18, 1946
			PASTURE 0	CONDITION	
P Important f	LANT SPECIES brage and indicator plants	EXCELLENT 100-90% Productivity	GOOD 90 75% Productivity	FAIR 75-50% Productivity	POOR 50% or less Productivi
Desirable Short Grasses		20%	30%		
Bluegrama—Buffalo grass		or	or		
unegrass Upland sedge		less	less		
Desirable Mid-Grasses and	Legumes				
mooth brome Crested w	catgrass		30%	More	Less
Canada/Kentucky bluegras	2S	80%			
Little bluestem			01	than	than
I all dropseed—Quackgrass	\$	07			
NCCOLE ADD-COFCAD		Lava .	more	50%	50%
Westwore autoration		less		2070	2 70
Alfalfa					
White/Red clover					
Desitable Tall Grasses					
Big bluesten—Feather bur	whiteass	20%			
Porcupinegrass Switcher:	ici ci	2076			
Red capary grass	10.4 1	Dorc			
ress Desirable Plants					
Prairie mubly		15%	20%		
Canada wiki rye—Prairie e	orderass	01	01		
ndiangrass	e	less	less	Less	More
Lowland sedges					thun
Undesirable Plants				una	(Intri)
oxtail barley-Bull thistle	•	10%	20%	50%	50%
PigeongrassGumweed		0	07	. , -	
Sunflower-Ragweed		less	less		
Other undesirable plants			-		
Stocking Rate	Native Pastures	0.5-0.7	0.6 - 0.9	0.9-1.5	Over 1.5
Acres per AUM*	Tame Pastures	0.25	4).45	0.65	0.65 or more
Erosion		None	None to slight	None to moderate	None to severe
Ground cover		Dense cover	(grading	down to)	Sparse cover
Amount of litter		Abundant litter	(gr.iding	down to)	No litter
Length of Grazing season		4 to 5 i	nonths	3 to 4	months
Acres per Animal Unit Month.					

Area 3-Condition Classification Guide for Pasture Land

Roberts, East Day, Grant, Codington, Hamlin, Deuel

TYPE: Tall Giass and Mixed Prairie	and East Marshall	Date:	South Dakota September 18, 1946	
				-

		PASTURE CONDITION					
Tengaartaat fo	Plant Species raise and indicator plants	EXCELLENT 100-90% Productivity	GOOD 90-75% Productivity	FAIR 75.50% Productivity	POOR 50% or less Productivi		
Desirable Short Grasses							
Blue grama Buffalo grass		40%	60%				
Upland sedge-Niggerwool	i	or	or				
lunegrass		less	less	More	1_CSS		
Desirable Mid/Tall Grasses Kentucky blueg ass		35%	5%	tha n	than		
smooth brome		or	07	50%	50%		
Western wheatgrass—Quae Bg/Little bluestem Sideoats grama—Tall drops Porcupinegrass—Switchgras	kgrass seed	mare	nxore				
Less Desirable Plants		15%	20%				
Prairie muhly Canadian wildrye		or	or	Less	More		
Prairie cordgrass		less	less	thur	- h		
Indesirable Plants				- (11.01	LILLUI		
age-Pigcongrass		10%	15%	50%	50%		
unflower Jumweed—Ragweed Buc vervaia		or	or				
Bull thistle—Peppergrass Other undesirable plants		less	less				
Stocking Rate	Native Pastures	0.5—0.8	0.6-1.0	1.0 2.0	2.0 or more		
Acres Per AUM*	Tame Pastures	.25—0.5	0.5	.75	1.0 or more		
Erosion		Nonc	None to slight	None to moderate	None to severe		
Bround cover		Dense	cover (grading	(down to) Spar	se cover		
Amount of litter		Abunda	ant litter (grading	(down to) No	litter		
ength of Grazing Season		4 to 5	months	3 to 4	+ months		

* Veres per Animal Unit Month,

13

Location: North Eeastern

-

Recommendations for Areas 4, 5, 6, 7, and 8

Grazing Management Practices for Pasture in Excellent and Good Condition:

- 1. Grazing season May 1 to November 15 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water to all parts of pasture or range.
- 4. Provide salt at all times, placing it at least 60 rods from water.
- 5. Obtain uniform grazing throughout pasture.
- 6. Graze important grasses to a minimum stubble height of one inch for short grasses and four inches for mid and tall grasses. These degrees of grazing represent about 90 percent of the annual growth in wet years and 75 percent in dry years.
- 7. Provide tame and supplemental pastures to furnish early and late season grazing. Treatment of Pasture in Excellent and Good Condition:
- 1. Mow weed spots in pastures to prevent their spread.
- 2. Spread water over grassland for increased hay and forage production.
- 3. Provide adequate fireguards.

Grazing Management Practices for Pasture in Fair Condition:

- 1. Grazing season-May 15 to November 1 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water to all parts of pasture or range.
- 4. Provide salt at all times, placing it at least 60 rods from water.
- 5. Obtain uniform grazing throughout pasture.
- 6. Graze current season's grasses to a minimum stubble height of 11/2 inches for short grasses and five inches for mid and tall grasses. This represents 80 percent use in wetyears and 65 percent use in dry years.
- 7. Provide tame and supplemental pastures to furnish early and late season grazing. Treatment of Pasture in Fair Condition:
- 1. Mow weeds in bud stage for weed control.
- 2. Spread water over grassland for increased hay and forage production.
- 3. Provide adequate fireguards.
- 4. Reseed bare areas in pastures; protect until established.
- 5. Fence to protect eroding gullies from grazing livestock.
- 6. Construct diversions around gullies.

Grazing Management Practices for Pasture in Poor Condition:

- 1. Grazing season-June 1 to November 1 (approximately).
- 2. Use stocking rate indicated on condition classification guide for each area.
- 3. Provide adequate water to all parts of pasture or range.
- 4. Provide salt at all times, placing it at least 60 rods from water.
- 5. Obtain uniform grazing throughout pasture.
- 6. Graze current season's grasses to a minimum stubble height of two inches for short grasses and six inches for mid and tall grasses; or give pasture total protection for one or more seasons to hasten natural recovery.

Treatment of Pasture in Poor Condition:

- 1. Mow weeds in the bud stage for weed control.
- 2. Spread water over grassland for increased hay and forage production.
- 3. Reseed bare areas in pastures; protect until established.
- 4. Fence to protect eroding gullies from grazing livestock.
- 5. Construct diversions around gullies.
- 6. Provide adequate fireguards.

7. Reseed entire pasture to adapted native and tame grasses and legumes if natural recovery is too slow.

Area 4-Condition Classification Guide for Pasture Land Central Spink, West Day, East Brown, and West Marshall

TYPE: Mixed Prairie

-

-

Location: Upper James River Date: September 18, 1946

		PASTURE CONDITION					
Important	Plant Species forage and indicator plants	EXCELLENT 100-90% Productivity	GOOD 90.75% Productivity	FAIR 75-50% Productivity	POOR 50% of less Productivity		
Desirable Short Grasses Blue grama—Buffalograss Upland sedge—Niggerwo Junegrass	ol	40% or lcss	60% •r less	Møre	Less		
Desirable Mid/Tall Grasses Kentucky bluegrass		25%	5%	than	tha n 50%		
Big/Little bluestem	eng i uso	0r	or	5070	5070		
Sideoats grama Tall dropseed Porcupinegrass Switchgr	ass	nnore	more				
Less Desirable Plants		15%	20%				
Indiangrass Prairie muhly Canada wildryc		●r	or	Less	More		
Prairie cordgrass		less	less	than	than		
Undesirable Plants Sage		10%	15%	50%	50%		
Gumwccd—Ragweed		or	or				
Blue vervain Boll thistle—Peppergrass Other undesirable plants		less	less				
Stocking Rate	Native Pastures	0.5-0,8	0.6-10	1.0-2.0	2.0 or more		
Acres Per AUM*	Tame Pastures	0.25-0.5	0,5	0.75	1.0 or more		
Erosion		Nonc	None to slight	None to moderate	None to severe		
Ground cover Amount of litter Length of grazing season		Dens Abund 5 to 6	e cover (grading ant litter (grading months	g down to) Spac g down to) No 4 to 1	rse cover o litter 5 months		

Aeres per Animal Unit Month.

C

Area 5-Condition Classification Guide for Pasture Land

Clark, Southeast Spink, East Beadle, West Kingsbury, East Sanborn,

Miner, McCook, Hanson, Hutchinson, Bon Homme, East Charles	Location:	Upper Ver	million	Riv
M. FreeD develop days T		and Lower	James Ki	NCL
Mux, rast Ljougias and Northwest Lurner	Date	September	18 1946	

TYPE: Mixed Prairie

wix, Last Douglas and Northwest Aurner Date:

er September 18, 1946

			PASTURE O	CONDITION			
linpostant	Plant Species forage and indicator plants	EXCELLENT 100 CO% Productivity	GOOD 90.75% Productivity	FAIR 75-50% Productivity	POOK 50% of less Productivit		
Desirable Short Grasses							
Blue grama-Buffalograss	•	35% or	50% or				
Junegrass-Upland sedge	1-ca. 10	less	less	More	1.655		
Desirable Mid/Tall Grasse	25						
Smooth brome-Crester 1	wheatgrass	+5%	15%	than	than		
Big/Little bluestem							
Western wheatgrass		01	01	50%	50%		
Sideoats grama Switch gi	rass						
Quackgrass-Dropsecd		more	DIOFC				
Kentucky hluegrass Pore	upinegrass						
Less Desirable Plants							
Canada wildrye		15% or	20% or				
Prairie muhly				Less	More		
Prairie cordgrass Lowlan	nd sedges	less	less less				
Undesirable Plants				than	than		
Foxtail barley-Bull thist	le	5%	15°/	-00/	= () D (
Pigeongrass-Gunweed		OF	or	20%	50%		
Sunflower Ragweed		less	less				
Other undesirable plants							
Stocking Rate	Native Pastures	0.5 0.8	0.6-1.0	1.0-1.7	Over 1.7		
Acres Per AUM*	Tame Pastures	0.3	0.5	0.75	1.0 or more		
Erosion		None	None to slight	None to moderate	None to severe		
Ground cover		Dense	cover (grading	down to) Spars	se cover		
Amount of litter		Abunda	int litter (grading	(down to) No	litter		
1 million of mention and a		S to G	manter (gratting	L	town to j i No litter		
tength of graving season		> to b	monuns	1 (1) 2	months		

"Acres her Animal Unit Month.

-

Area 6--Condition Classification Guide for Range/Pasture Land West Beadle, West Sanborn, Davison, Northeast Douglas, East

Location: Wessington Hills to

TYPE: Mixed Prairie		Auror	Aurora, Jerauld, Southeast Hand					Date: September 18, 1946		
		RANGE/PASTURE CONDITION EXCELLENT GOOD FAIR						P	DOR	
P Important for	lant Species age and indicator plants	100 90% P Et	roductivity 2;	90-75% Pr 1	oductivity 2	75-50% Pr 1	oductivity 2	50% or le	ss Productivit) 2	
Desirable Short Grass	ics									
Blue grama—Buffalog	grass	60%		80%						
Upland scdge-Nigge	crwoo]	or		or						
Juncgrass		less	90%	less	75%	More	Morc	Less	Less	
Desirable Mid/Tall G	rasscs		(a. 7	0.001		eh	ah		.1	
Western/Grested who	algrass	40%	0	20%	())	uuu	uun	101201	TU(III)	
Big bluesten Newdle and thread		05	INUIC		more	50%	50%	50%	50%	
Feather bunchgrass		01		01		2070	2 - 70	2010	J~ /0	
Sideoats grama Tall	dropseed	more		more						
Smooth brome Swite	chgrass	more		more						
Less Desirable Plants										
Little bluestem		15%		20%						
Prairic cordgrass-Sa	nd dropseed	or		or						
Prairic muhly		less	10%	less	25%	Less	Less	More	More	
Canada wildiye										
Undesirable Plants			or		OF	than	than	than	than	
Foxtail barley Inlan	d saltgrass	5%		15%	1	-00/	- + 0 /	=0.04		
Gumweed			less		ICSS	50%	<u>></u> ₩7₀	50%	50%	
Peppergrass—Sunflow	Ver	or		0 r						
Angweed Since	and the same	lavi		lare						
Mary toil L ocoward	eeks rescue	1028		1055						
Other undesirable pla	nts									
Stocking Rate	Native Pastures	0.7-1.0		0.8-1.3		1.3 - 2.0		2.0 or more	2	
Acres Per AUM*	Tame Pastures		C.5		0.75		1.0		1.25 or mor	
Erosion		No	ne	Noncto	slight	None to 1	noderate	None	to severe	
Ground cover		Dense	COVER		(grading	down to)		Snar	se cover	
Amount of litter			Abuni	laut litter	(oradina	t down to)	N	o litter		
1 couth of graving se	ne in		6 to 7	months	(A rectify		5	li monthe		
THEN OF ALLOWING SCO			0.07	montina			2 (0)	O THOTHR		

Acres per Anamai Unit Month. (Native grassland,

Time grass pastures.

Area 7-Condition Classification Guide for Range/Pasture Land

McPherson, Edmunds, North Hand, West Spink,

TYPE: Mixed Prairie

18

West Brown, Faulk

Location: North Ceneral South Dakota Date: September 18, 1946

-

		FXCEI	FXCELLENT GOOD		RE CONDITION 1-AIR		POOR			
Plant Species Important forage and indicator plants		100-90% P 11	zuductivity 2:	\$0−75% Pr 1	oductivity 2	75	75		50% or less Productivity 1 2	
Desirable Short Grasse Blue grama—Buffalog Junegrass Upland sedge—Nigge	rs rass rwool	60% or http://	911%	80% or less	75%	More	More	Less	Less	
Desirable Mid/Tall Gr Western/Crested when Needle and-thread Sidcoats grann Feat Big bluestern Tall da	asses utgrass her bunchgrass ropseed	40% or more	marc	20% or less	or more	50%	50%	50%	50%	
Less Desirable Plants Prairie muhly Sand dropseed—Little Canadian wildrye	bluestem	15% or less	10 %	20% or less	25%	Ics	Less	More	More	
Undesirable Plants Knotweed—Inland sa Silver sige Gumweed Buckbrush Bull thistle Other undesirable plan	ltgrass Its	5% or less	or less	15% or less	or Tess	than 50%	than 50%	than 50%	than 50%	
Stocking Rate	Native Range	u.71.0		0.8—1.3		1.3-2.0		Over 2.0		
Acres Per AUM*	Tame Pastures		0.5		0.75		1.00		1.25 or more	
Erosion Ground Cover Amount of litter		None Dense cover Abundant litter		None to slight (grading (grading		None to some g down to) g down to)		None Spars No	to severe c cover litter	
Length of Grazing Se	35011			6 to 7 1	nonths	5 to 6 i	months			

*Acres per Animal Unit Month. 4 Native grassland : Time grass plasmires.

Area 8—Conditiou Classification Guide for Range/Pasture Land Campbell, Walworth, Potter, Sully, Hughes, Hyde, Southwest Hand, Buffalo, Brule, West Aurora, West Douglas,

TYPE: Mixed Prairi	ic	,,	North Cl	harles Mix		,	Date:	September	n River 18, 1946
	Plant Species	EXCEI 100-90% F	EXCELLENT 100-90% Productivity		ANGE/PASTI DD roductivity	F7 75-50% F	N MR Productivity	POOR 50% or less Productivity	
Important to:	rage and midicator blants	1.1.	23	1	2	1	2	1	2
Desirable Short Gras	SCS	1.00 /							
Blue grama—Buffale	igrass	00%	90%	80%	75%	More	More	LUSS	Less
Junegrass	1	OĽ		or					
Niggerwood-Upland	d sedge	less	or	ICSS	· 141,	than	than	than	thin
Desnable Mid Tall (Tasses	5.1.0.f							
Western/Crested wh	lealgrass	10%	monc	20%	more	50%	50%	50%	50%
Needleand-thread-	-Big bluestem	Uľ		01					
Sideoals grama-hea	ither hunchgrass	more		more					
Less Desirable Plants									
Little bluesten		15%		20%					
Canada wildryc		OF		or					
Prairie muhly Prair	ric sandgrass	less		CSS					
Sand dropseed			10%		25%	LCNN	Less	More	More
Undesirable Plants									
Inland saltgrass			(1)		or	than	than	than	than
Sixweeks fescie-Ar	nnual bronics								
Marestail—Aster			less		CSS	50%	50°	50%	511%
Sunflower-Locower	.al								
Gumweed									
Russian thistle									
Prieklypcar									
Death camas									
Other undesirable pl	ints								
Stocking Rate	Native Range	1.0-1.5		1.2-1.8		1.8-2.6		Over 2.6	
Acres per AUM .	Crested wheat		().5		0.75		1.0		1.25 or mor
Erosian		No	nc	None to	o slight	None to	moderate	None	to severe
Ground cover		Dense	COVER		(gradin)	g down to)		Spars	e cover
Amount of litter		Abunda	nt litter		(grading	tdown to)		No	litter
Length of grazing se	ason		6 to 7	months			5 tu 6	months	
Acres per Antinil Unit 2	Month. IN trive :	grasst ind.	101	ested Whentgras	v pastures.				

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Recommendations for Areas 9 to 18 Inclusive

Grazing Management Practices for Range in Excellent and Good Condition:

- 1. Grazing season May 1 through November and possibly December.
- 2. Use stocking rates indicated on condition classification guide for each area listed above.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Keep salt before livestock at all times, placing it at least one-fourth mile from water so that grazing will be distributed uniformly.
- 5. Cross-fence large range areas for better distribution of cattle on the range.
- 6. Move sheep bed grounds at least every week.
- 7. Graze important grasses to a minimum stubble height of one inch for short grasses and four inches for mid and tall grasses.
- 8. Provide crested wheatgrass pastures to furnish early season grazing, starting April 10 in average years. Crested wheatgrass pasture may allow deferring native range for one to two months later than May 1.
- 9. Rotate grazing to maintain high vigor of the range grasses.

Treatment of Range in Excellent and Good Condition:

- 1. Practice windrowing for fall and winter grazing. Rotate windrowed area over the range. Cut grass early in July for highest protein content.
- 2. Divert water from natural drainages and spread it on grassland for increased hay and forage production.
- 3. Provide adequate fireguards.

Grazing Management Practices for Range in Fair Condition:

- 1. Grazing season—May 15 to December 1 (approximately).
- 2. Use stocking rates indicated on condition classification guide for each area listed above.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Keep salt before livestock at all times, placing it at least one fourth mile from water so that grazing will be distributed uniformly.
- 5. Cross-fense large range areas for better distribution of cattle on the range.
- 6. Move sheep bed grounds at least every week.
- 7. Graze current season's grass growth to a minimum stubble height of 1½ inches for short grasses and five inches for mid and tall grasses.
- Provide crested wheatgrass pastures to furnish early season grazing, starting April 10 in average years. Crested wheatgrass pasture may allow deferring native range for one to two months.

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9. Rotate grazing to maintain high vigor of the range grasses.

Treatment of Range in Fair Condition:

- 1. Practice windrowing for fall and winter grazing. Rotate windrowed area over the range. Cut grass early in July for highest protein content.
- 2. Divert water from natural drainages and spread it on grassland for increased hay and forage production.
- 3. Provide adequate fireguards.
- 4. Reseed bare areas where natural recovery is too slow.
- 5. Fence to protect actively eroding gullies from grazing livestock where practicable.
- 6. Construct diversions around gullies to prevent further head cutting.

Grazing Management Practices for Range in Poor Condition:

- 1. Grazing season June through November (approximately).
- 2. Use stocking rates indicated on condition classification guide for each area listed.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Keep salt before livestock at all times, placing it at least one-fourth mile from water so that grazing will be distributed uniformly.
- 5. Cross-fence large range areas for better distribution of cattle on the range.
- 6. Move sheep bed grounds at least every week.
- 7. Graze current season's grass growth to a minimum stubble height of two inches for short grasses and six inches for mid and tall grasses, or give range total protection from grazing for one or more seasons.
- 8. Provide crested wheatgrass pastures to furnish early season grazing, starting April 10 in average years. Crested wheatgrass pasture may allow deferring native range for one to two months.
- 9. Rotate grazing to maintain high vigor of the range grasses.

Treatment of Range in Poor Condition:

- 1. Divert water from natural drainages and spread it on grassland for increased hay and forage production.
- 2. Resced bare areas where natural recovery is too slow.
- 3. Fence to protect actively eroding gullies from grazing livestock, where practicable.
- 4. Construct diversions around gullies to prevent further head cutting.
- 5. Provide adequate fireguards.
- 6. Reseed large bare areas only when the desirable perennial grasses have been completely killed by over-grazing. Usually remnants of grasses will revegetate badly depleted ranges more rapidly and at less expense than artificial reseeding.

Area 9—Condition Classification Guide for Range Land Stanley, Jones, Lyman, East Mellette, North Tripp and North Gregory Counties

TYPE: Mixed Grass Prairie

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					RANGE	CONDITION			
P. Important for	lant Species age and indicator plants	EXCELI 101-90% P 11	LENT roductivity 2‡	GOC 90—75:% Pr L	D oductivity 2	FAI 75 50% Pr 1	R oductivity 2	P 50% or 3c 1	OOR ss Pruductivity 2
Desirable Short Grass	cs								
Blue grama-Buffalo	grass	60%	90%	80%	75%	More	More	Less	Less
Niggerwool-Upland	l sedge	or	. 070	or	/ /0	1.1.01 C		200.00	
Junegrass		less	υ Γ	less	01	than	than	than	than
Desirable Mid Grasse	s								
Western/Crested who	catgrass	10%	niore	20%	more	50%	50%	50%	50%
Needle-and-thread F	eather bunchgriss	07		or					
Sidcoats grama		more		more	_				
Less Desirable Plants		Less		20%					
Little bluestem San	d dropseed	than		or					
Prairie muhly Canad	da wildrye	10%		less					
Undesirable Plants			10%		25%	Less	Less	More	More
Foxtail/Little barley								0.5	
Inland saltgrass-Red	l threeawn	Less	() I	15%	01	than	thin	than	than
Annual broines-Six	weeks fescue								
Sunflower—Gumwere	:d	than	C%S	01	less	50%	50%	50%	50%
Russian thistle		106/		,					
Locoweed—Death ca	mas	10%		less					
Marcstall									
Other undesnable pla	ints		_		_				
Stocking Rate	Native range	1.25-1.75		1.50-2.25		2,25 3.25		Over 3.25	
Acres Per AUM*	Crested wheat		0.75		I_00		1.25		1.50 or more
Erosion		No	nc	None to	slight	None to r	noderate	None	to severe
Ground Cover		Dense	cover		(gradin	g down to)		Spar	se cover
Amount of litter		Alundar	e litter		(gradin	r down to)		N	litter
Leave of Carrier C		Abunuar	6 m 7	mantha	(gradin	g down toj	5 6		- MACCE
Length of Grazing S	самил		0 (0 /	months			> 10 0	montas	

*Acres (er Animal Unit Month.

tNuise ringe or goback hand.

(Created wheatgriss,

Location: West Missouri River

Date:

August 15, 19-16

Area 10-Condition Classification Guide for Range Land South Tripp, South Todd, South Bennett, Southeast Shannon,

2

TYPE: Sandhills San	dsage	and C	entral Fa	ll River Cou	nties		Location : Date:	Sandhill Are September 1	as 0, 1916
				000	RANGE C	ONDITION		DC	
Pla Important foraj	ont Species ge and indicator plants	EXCELI 100-90% Pr 1†	coductivity 2‡	90—75% Pro I	oductivity 2	ГА 75—50% Р I	roductivity 2	50% or less	Productvity 2
Desirable Short Grass	:5								
Blue grama Buffalog	rass	60%		80%					
Niggerwool-Upland	sedge	10	90%	10	75%	More	More	Less	Less
Juniegrass-Hairy grat	na	less		less					
Desirable Mid/Tall G	rasses	40%	COL	211%	OF	than	than	than	than
Western/Crested when	atgrass					500/	500/	500/	500/
Sideoats grama		10	nierc	or	more	50%	50%	50%	50 /0
Switchgrass									
Big bluestem		more		more	_				
Less Desirable Plants				200/					
Prairie sandgrass Pra	iric muhly	Less		20%					
Little/Sand bluestem		.1	100/	_	250/	Low	1	More	More
Sand dropseed		than	10%	Or	20%	LCSS	LC33	1011/10	1111710
Western bluegrass		100/	615	less	07	rhan	than	than	than
Canada mildrag	211	10/0	U1	6C 3.3	(M				
		Law	less	15%	less	50%	50%	50%	50%
Undesirable Plants		1.035	1200	1)/0					
Sandsage 1 ucca	vaci	than		or					
Pricklypear	vecu								
Other undesirable play	nts	10%		less					
Stocking Pate	Native cange	1.75 2 5		2.0-3.25		3.25 4.5		Over 4.5	
Auges Dug ALIM#	Central wheat		1.0		1.5		2,0		2.0 or mor
Actes for AOM	Crested wheat	_	1.0						
Erosion		No	ne	None to) slight	None to	moderate	None	to severe
Ground cover		Dense	COVET		(gradin	g down to)		Spars	e cover
Amount of litter		Abunda	nt litter		(gradin	g down to)		No	litter
Length of grazing sea	son		5 to 2	months			5 to (6 months	
souther or Browing and	Let 1		+/	Provenuel autore a structure	-				

†Shive range or go back lind. *Acres pet Animal Unit Month.

Area 11-Condition Classification Guide for Range Land

South Gregory, Southeast Tripp, West Tripp, Todd, and South Central Mellette Counties

Location: Rosebud Date: September 10-11, 1946

te:	September	10-11,	1946	
		-		

					RANGE O	CONDITION			1.000
P Important for:	lant Species age and indicator plants	EXCELL 100—90% Pro 1†	ENT ductivity 2‡	600 90—75% Pro I	ductivity 2	FAI 75—50% Pro 1	R oductivity 2	50% or less : 1	DR Productivity 2
Desirable Short Grass	es	65%		s0%	750/	Maar	Maria	Loca	Loss
Blue grama—Isurtalog	grass	05 /0	00%	0070	10%	MOLC	MOLE	Less	Less
Niggerwool Upland	sedge	less	9070	less	0.5	than	than	than	than
Device his Mid (Tell C		1055	or		01	tiait	Gian	ulan	than
Western (Created who	Tasses	35%		20%	more	50%	50%	50%	50%
Needle and thread	Big bluestom	0, C	more	010		0,0			
Sideoats grama Swit	churass	100re		more					
Less Desirable Plants	cingratio	Less		20%					
Little blucstem		11033		,,,					
Prairie muhly		than		10					
Canada wildryc									
Sand dropseed		10%	10%	less	25%	Less	Less	More	More
Undesirable Plants									
Foxtail/Little Barley			0		or	than	than	than	than
Inland saltgrass Red	l threeawn	Less		15%		500/	509/	500/	509/
Annual bromes			less		less	50%	50%	50%	50%
Sixweeks fescue		than		or					
Marestail-Sunflower	r	100/		1					
Ragweed		10%		less					
Gumweed									
Other undesirable pla	sage								
Stocking Rate	Native cange	1 50 2 00		175-250	_	2 50 3 50		Over 3 50	
Acros por ATIM*	Crested wheat	112 - 2100	0.75	10.7 2.7	1.00	DID 0110	1.25	0.010.000	1.50 or more
Tel	Created wireat	Nor	0,172	None to	slight	None to p	noderate	Nonet	o severe
Erosion			ic	None to	(man lin		noucrate	Spare	0.0000
Ground cover		Dense	over		(gradin	ig down to)		Spars	
Amount of litter		Abundar	tlitter		(gradin	g down to)		No	Intter
Length of Grazing So	cason		6to 7	7 months			5 to 6	months	

*Acres per Animal Unit Month. + Native range or go-back land. (Crested wheatgrass.

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TYPE: Mixed Grass Prairie

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Area 12-Condition Classification Guide for Range Land

TYPE: Mixed Grass/Scattered Timber

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Bennett, Washabaugh, and Shannon Counties

Location: Pine Ridge Date: September 10, 1946

P Important for	lant Species	FXCELL: 100-90% Pro	ENT ductivity	GDD 90—75% Fro	RANGE D ductivity 2	CONDITION FAIR 75-50% Pro	ductivity	PO 50% or less	OR Productivity 2
Desirable Short Grass Blue grama—Buffalo, Niggerwool—Upland Junegrass	cs grass I sedge	70% or less	90%	85 % or lcss	75%	More	More	Less	Less
Desirable Mid-Grasse Western/Crested who Feather bunchgrass Needleand.thread Sideoats grama—Big	s eatgrass bluestem	30% or more	or more	15% or more	or more	than 50%	than 50%	than 50%	than 50%
Less Desirable Plans Little bluestem Sand dropseed—Prain Prairie muhly Canada wildrye	ri¢ sandgrass	Less than 10%	10%	20% er less	25%	Less	Less	More	More
Undesirable Plants Foxtail /Little barley Sixweeks fescue—An Gumweed—Fringed Snakeweed—Inland Red threeawn Other undesirable pla	nual brome sage saltgrass ints	Less than 10%	a r less	15% or less	or less	than 5u%	than 50%	than 50%	than 50%
Stocking Rate	Native range	1.75-2.25		2.0-2.75		2.75-3.75		Over 3.75	211
Acres per AUM*	Crested wheat		1.0		1.25		1.75		2.25 or more
Erosion Ground cover Amount of litter		Nor Dense Abundar	ne cover nt litter 7 •	None to	o slight (gradin (gradin	None to n g clown to) g down to)	noderate	None Spars No	to severe se cover litter

Arris per Animal Unit Month. Native range or go-back land, (Crested wheatgrass,

Area 13 Condition Classification Guide for Range Land Northwest Shannon, Southeast Pennington, Southwest Jackson, North Washabaugh, and West Mellette Counties

TYPE: Mixed Grass Badlands

Location : Badlands Date: September 13, 1946

							RANGE (CONDITION	5				
Plant Sp Importabili forage an	pecies id indicator plants	100— 1†	24 24 24	T ctivity 3§	,50— 1	GUUD -75% Produ 2	ctivity 3	75 I	FAIR 50% Produ 2	ctivity 3	50% a	POOR or less Produ 2	uctivity 3
Desirable Short Gra Blue grama—Buffa Niggerwool—West	asses lograss tern bluegrass	75%	Sa by	90%	90%	ອີຍ	75%	More	Sa	More	Less	Sa by	Less
Juncgrass		less	san	05	less	n sa	05	than	Inc	than	than	sam	than
Desirable Mid.Gras Western/Crested w Feather bunchgrass Sideouts grama	sses /heatgrass	25% or more	as colum ne percen	more	10% or	ne percer	more	50%	as colums ne percent	50%	50%	as column 1e percent	50%
Less Desirable Plan Little bluestem Prairie muhly—Pra Sand dropseed	its niric sandgrass	Less than 10%	n I. Reduce tage as bare		20% or less	n Redue ntage as bar			n 1. Reduce age as bare			n 1. Reduce tuge as bare	
Undesirable Plants Foxtail/Little barle Inland saltgrass—F	y Ved threeawn	Less	: grazinį : badlam	10% or	15%	e grazin e badlar	25%	l.ess than	grazing badland	Less than	More than	grazing badlanc	More than
Annual bromes Tumblegrass Sixw Sunflower-Gumw	veeks fescue veed	than	z capacit ds in arc	less	or	g capaci ols in ar	less	50%	capacit ls in are	50%	50%	ls in arc	50%
Fringed sage—Sna Pricklypear Other undesirable (keweed plants	10%	8 ~		less	ci ty			27.4			5 ⁶²	
Stocking Rate	Native range	2.25	2.75		2.5_	_3.25		3.25	4.50	_	Ove	r 4.5	
Acres per AUM*	Crested wheat			1.0			1.25			1.75		2.3	25 or more
Erosion			None			None to sl	light	N	one to ma	derate	1	None to se	vere
Ground cover			Dense co	ver			(grading	g down to))			Sparse co	ver
Amount of litter		Λ	bundant	litter			(grading	g down to)				Nolitte	er -
Length of grazing	season		710	o 8 menths							6 to 7 m	onths	
*Aeres per Animal Uni †Native range of go-ba	it Month. ack land,	₹8 §C	adlinets r in rested whe:	atgrass.							_		

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Area 14-Condition Classification Guide for Range Land Northwest Mellette, Jackson, Haakon, South Ziebach, Armstrong, East Dewey, Southeast Carson, South Meade, Butte, East Custer, East Pennington, and East and South Fall River Counties

Location: Belle Fourche Cheycnne Rivers August 13-14, 1946 Date:

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					RANGE C	ONDITION			
Pi Inputtant fora	ant Species ge and indicator plants	EXCEL 100—90% P 1t	LENT roductivity 2 [‡]	GOC 90—75% Pr l	DD oductivity 2	75-50% P	eductivity 2	50% or less 1	OOR Productivity 2
Desirable Short Grass	es								
Blue grama-Buffalog	rass	70%		85%					
Nigger wool Upland	l sedge	01	90%	or	75%	More	More	Lcss	Less
Western bluegrass Ju.	negrass	less		less					
Desirable Mid/Tall G	rasses	30%	01	15%	or	than	than	than	than
Western/Crested who Feather bunchgrass	atgrass	10	more	or	tuole	50%	50%	50%	50%
Sideoats grama		more		less					
Less Desirable Plants									
Little bluestem		1.css		20%					
Sand dropseed Prair	ic sandyrass	than		or					
Prairie muhly		10%	10%	less	25%	Less	Less	More	More
Undesirable Plants Foxtail/Little barley		Less	or	15%	or	than	than	than	than
Inland saltgrass—Red	l threeawn	than	less	or	less	50%	50%	50%	50%
Sunflower—Gunwee Snakeweed—Fringed Other undesirable pla	d sage	10%		less					
Stocking Rate	Native range	2.0 2.5		2.25-3.0		3.0 4.0		Over 4.0	
Acres per A UM*	Crested wheat		1.0		1.25		1.75		2.25 or more
Erosion Ground cover Amount of litter Length of grazing sea	NOD	No Dense Abunda	ne cover nt litter 7 to 8	None to	o slight (grading (grading	None to down to) down to)	moderate 6 to 7	None Spars No months	to severe se cover litter

*Acres per Animal Unit Month. 1Native runte or go-back land, "Crested wheatgrass.

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TYPE: Mixed Grass Prairie

TYPE: Mixed Grass	Prairie	Area 15—Condition	on Classif West De	ication Guide wey, and Co	e for Ran orson Cou	ge Land unties	Location: Date:	Lower Gra n August 29,	d River 1946
					RANGE	CONDITION			
P Important for	lant Species age and indicator plants	EXCEL 100-90% P 1†	LENT roductivi y 2‡	GOC 90—75% Pr 1	DD oductivity 2	75—50% I 1	AIR Productivity 2	PC 50% or less 1	Productivity 2
Desirable Short Grass	cs								
Blue grama-Bull alog	grass	60%		80%	- 1				
Niggerwool-Upland	l Sedge	Oľ	90%	or	75%	More	More	Less	Less
Junegrass		less		less					
Desirable Mid-Grasse	5		or		01	than	than	than	than
Western/Crested whe	atgrass	40%		20%		509/	500/	50%/	50%
Feather bunchgrass		01	more	or	more	50%	50%	50%	5070
Needle and thread		more		morè					
Sideoats grama									
Less Desirable Plants		Less		20%					
Little bluestein									
Sand dropseed		than		or			_		
Canada wildow		1(10/	10%	23.05.0	25%	Less	Less	More	More
		10/0		more		.1			.1
Undesnable Plants	Lat	t	01	150/	Oľ	(i)an	than	inan	than
Annual beenver	J Inrecawo	Less	lare	1)/0	lass	50%	50%	500/	50%
Sixweeks ferring		than	1085	05	1055	5070	10%	10%	2070
Sunflower-Gumwer	rd	(II all		01					
Marestail-Wild lette	uce	10%		less					
Fringed sage-Sageb Other Undesirable Pl	rush	- 70							
Stocking Rate	Native range	1.50-2.00		1.75-2.75		2.75-3.75		Over 3.75	
Acres Per AUM*	Crested wheat		.85		1.15		1.65		2.15 or more
Erosion		No	ле	Nоле to	slight	None to	moderate	None	o severe
Ground cover		Dense	cover		(gradin	gdown to)		Spars	c cover
Amount of litter		Abunda	nt litter		(gradin	g down to)		No	litter
Length of grazing sea	1500		7 to 8	months			6 to 7	wonths	
*Acres Per Animal Unit M	fonth.		,						

*Native range or go.back land. Crested wheatgrass.

TYPE: Mixed Grass Pr	airie North I	Meade, Perkins	s, Hardın	g, and North	neast Butt	e Counties	Datc:	November	18, 1946
Pla Important for ag	nt Spècies e and indicator plants	EXCEL 100—90% P 1†	LENT roductvity 2‡	GOO 9∎—75% ₽re 1	RANGE C D oductivity 2	ONDITION Fr 75 50% P l	AIR roduct ivity 2	P 50% or les 1	OOR s Productivity 2
Desirable Short Grasse	5								
Blue grama—Niggerw	ool	65%		80%					
Buffalograss Upland	sudge	or	90%	or	75%	More	More	Lcss	Less
Western bluegrass-Ju	negrass	less		less					
Desirable Mid-Grasses		35%	OC	20%	or	than	than	than	than
Western/Crested whea	itgrass					500/	E 00/	50%	50%
Feather bunchgrass		or	more	or	more	50%	50%	5070	50%
Sideoats grama		03/150		101070					
Needle.and-thread		more		more					
Less Desirable Plants		1		20%					
Little bluestem	la mildana	than		0102					
Draine canderaes	la wharye	10%	109/	less	25%	Less	Less	More	Morc
Prairie muhly		== 70	10/0		22 /0	2000	2000		
Undesirable Plants			or		or	than	than	than	than
Inland saltgrass-Rcd	thrceawn	Less		15%				5004	5004
Tumblegrass-Maresta	il		less		less	50%	50%	50%	50%
Sunflower-Gumweed		than		OF					
Snakewced Fringed	sage	100/		1					
Sagebrush Russian th	istic	10%		1035					
other undestrable plat		20.25		2 25 3 0		2040	_	Over 4.0	
Stocking rate	Native range	2.0 2.5	1.0	2.23-3.0	1.25	2.0-1.0	1 75	0101 1.0	2 25 or mor
Acres per AUM*	\perp Crested wheat		1.0		1,25	N	1,75	Num	2,29 01 1101
Erosion		No	one	inone to	slight	None to	moderate	NOIL	to severe
Ground cover		Densc	cover		(gradin	g down to)		Spa	rse cover
Amount of litter		Abunda	int litter		(gradin	g down to)		N	o litter
Length of grazing seas	son		7 te 8	months			6 to	7 months	
*Actes per Animal Unit Me Native range or go-back i Crested wheatgrass.	onth. and.								

Area 16-Condition Classification Guide for Range Land

North Meade, Perkins, Harding, and Northeast Butte Counties Date:

Location: Northwest South Dakota November 18, 1946

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 $\underline{\mathbf{\hat{\nu}}}_{1}$

TYPE: Mixed grass p	orairic	N	ort h Law	rence County	Ŷ	0	Location: Date:	Spearfish August 27,	1946
					RANGE (ONDITION	_		
P Important for	lant Species age and indicator plants	EXCEL 100—90% Pr Jt	LENT roductivity 2‡	GOC 98-75% Pr 1	DD uductivity 2	F 7 5 5 0% 1	AIR Productivity 2	Fa 50% or less 1	AIR Productivity 2
Desirable Short Grass	ics								
Blue grama—Buffalo	grass	65%		80%					
Niggerwool-Upland	sedge	Or	90%	or	75%	Mere	Morc	Lcss	Lcss
Western bluegrass Ju	Incgr:158	less	, -	Jess					
Desirable Mid/Tall G	rasses		or		OF	than	than	than	than
Western/Crested who	atgrass	35%		20%		500/	500/	500/	500/
Kentucky bluegrass			more		ITIOIC	50%	50%	50%	50%
Smooth brome Bigl	plucstem	Oľ		or					
Slocoats grama—Nee	dic-and-thread			122 (18.0					
reather bunchgrass		BIOIC		2004					
Less Desirable Plants		Less		20%					
Little bluestem Cana		tnan	10-1	lor	0.5.4		-		
Prairie nunty Prairi	e sanograss	10 / 0	10%	1055	25%	Less	Less	Morc	Morc
Undesirable l'lants		Law	or	15.9/		than	then	than	than
Formal / Little barley	. Infectivit	LC33	01	10/0	Ur	man	tran	Litan	(1141)
Annual bromes-Pric	klynear	than	less	or	less	50%	50%	50%	50%
Sixweeks fescue—Yu	cca		1000		1000	2070	5070	2 - 70	2 - 70
Gumweed Sunflowe	r	5%		less					
Fringed sage-Snake	weed								
Other undesirable pla	ints								
Stocking Rate	Native range	1.75 2.25		2.00-3.00		3.00-1.00		Over 1.00	
Acres per AUM*	Crested wheat		1.00		1.25		1.75		2.25 or mor-
Erosion		No	nc	None to	slight	None to	moderate	None t	o severe
Ground cover		Dense	cover		(gradin	g down to)		Spars	c cover
Amount of litter		Abunda	nt litter		(grading	down to)		No	litter
I couth of articing con	500		6107	months	10. 23113		5 to 6	months	
thength of graving sea	3011		0.07	1113/11015			5 10 0		

Area 17-Condition Classification Guide for Range Land

*Acres per Anima Unit Month. EN trive range or go-back land, Crested wheatgrass.

FION FAIR POOR 75-50% Productivity 3 50% or less Productivity 3 pre $\frac{50}{12}$ me Less $\frac{50}{12}$ Less an $\frac{50}{12}$ me than than $\frac{50}{12}$
an same col 50% 50% pp 50%
an $\underset{\text{B}}{\overset{\text{C}}{\underset{\text{B}}}}$ than than $\underset{\text{B}}{\overset{\text{C}}{\underset{\text{B}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{B}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\underset{\text{C}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\overset{\text{C}}{\underset{\text{C}}}}$ than $\underset{\text{C}}{\underset{\text{C}}}$ than t
errennt 1
age as bare & More
an dian than than dian than
n area. n area.
3.75-5.00 Over 5.00
2.00 2.50 or more
None to moderate None to severe
n to) Sparse cover
n to) No litter
6 to 7 months
3.: 1 1 1 1 1

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Scabland or hadlands. Crested wheatgrass.

Recommendations for Area 19

Grazing Management Practices for Range in Excellent and Good Condition:

- 1. Grazing season May 15 to October 15 (approximately).
- 2. Use stocking rates indicated on condition classification guide for Area 19.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Furnish salt to livestock at all times, placing it at least one eighth mile from water so that grazing will be uniform.
- 5. Fence meadows to force cattle into higher ranges.
- 6. Move sheep bed grounds at least every week.
- 7. Graze important grasses to a minimum stubble height of $1\frac{1}{2}$ inches for short grasses and five inches for mid and tall grasses.
- 8. Provide tame pastures to lengthen the grazing season, particularly between April 15 and May 15.

Treatment of Range in Excellent and Good Condition:

- 1. Mow weed spots in meadows to prevent spread. Grazing Management Practices for Range in Fair Condition:
- 1. Grazing season—June 1 to October 1 (approximately).
- 2. Use stocking rates indicated on condition classification guide for Area 19.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Furnish salt to livestock at all times, placing it at least one-eighth mile from water so that grazing will be uniform.
- 5. Fence meadows to force cattle into higher ranges.
- 6. Move sheep bed grounds at least every weck.
- 7. Graze current season's grass growth to a minimum stubble height of two inches for short grasses and six inches for mid and tall grasses.
- 8. Provide tame pastures to lengthen the grazing season, particularly between April 15 and May 15.

Treatment of Range in Fair Condition:

- 1. Mow weed spots in meadows to prevent spread.
- 2. Fence to protect eroding gullies from grazing livestock.
- 3. Divert water out of eroding gullies to prevent further head cutting.

Grazing Management Practices for Range in Poor Condition:

- 1. Grazing season—June 15 to September 15 (approximately).
- 2. Use stocking rates indicated on condition classification guide for Area 19.
- 3. Provide adequate water for uniform distribution of livestock on the range.
- 4. Furnish salt to livestock at all times, placing it at least one eighth mile from water so that grazing will be uniform.
- 5. Fence meadows to force cattle into higher ranges.
- 6. Move sheep bed grounds at least every week.
- 7. Graze current season's grass growth to a minimum stubble height of three inches for short grasses and $7\frac{1}{2}$ inches for mid and tall grasses, or give range total protection for one or more grazing seasons.

Treatment of Range in Poor Condition:

- 1. Mow weed spots in meadow to prevent spread.
- 2. Fence to protect eroding gullies from grazing livestock.
- 3. Divert water out of eroding gullies to prevent further head cutting.
- 4. Resecd with native and tame grasses and legumes in mixture where natural recovery is too slow.

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Area 19-Condition Classification Guide for Range Land South Lawrence, West Pennington, West Custer,

North Fall River Counties

Location: Black Hills August 21, 1946 Date:

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			KANGE	CONDITION				
EXCEL 100-90% Pi 1†	LENT roductivity 2‡	GOO 90—75% Pro 1	DD oductivity 2	FAU 75-50% Pro 1	R Iductivity 2	50% or less P 1	DR Foductivi 2	
60%	10	80%	\$		10		U.	
or	by by	or	by		hy		by lar	
less	ne sa	less	Still S	Morc	ST ST	Lcss	Sal	
	ns -		SCI SI		nc d		anc Sta	
40%	col	20%	pe	than	od loc	than	pe	
	uu		TCC IT	500/	rec	500/	rce	
or	cnt	or		50%	99	50%	un a	
	1.] 38		R		l.F		30.7	
more	Cul	more	•B 6-		215		35	
	luço S vva		NV a		wa		W.C.C.	
Less	1Sto	20%	Ster Ster		Stc Sr:		gra	
	าส โล		lan i	Lcss	lan	More	ໄລກ	
than	h	or	0.12		G∩g		2-39	
100/	E S		np	than	1 2	than	in cap	
10%	pau	less	11.03	500/	9.00	500/	ure	
Less	a ly	15%	ity 1.	50%	nty a.	50%	a. 15	
than		or						
10%		less						
2.0-30		2.25-10		4.0-6.0		Over 6.0		
1.0 or less		1.5 or less		2.5 or less		2.00r more	_	
No	ne	None to	slight	None to m	odcrate	Nonc to	severe	
Dense	Cover		(grading	g down to)		Sparse	COVCE	
Abundant litter			(gradin	g down to)		No litter		
	3 to 5 months				3 to 4	months		
	EXCEL 100-90% P 1t 60% or less 40% or more Less than 10% Less than 10% 2.0-30 1.0 or less No Dense Abunda	EXCELLENT 100-90% Productivity 11 22 60% or by some as column or by some percentage as water of the some of th	EXCELLENT 100-90% Productivity 1 GOC 90-75% Productivity 1 60% or less 80% or less 40% 80% or less 40% 20% or more 40% 20% or more 40% 20% or 0r 0r 10% 20% 10% 20% 10% 20% 10% 15% or 10% 15% bits 10% 15% bits 10% 15% bits 10% 15% bits 10% 1.5 or less 2.0-30 2.25-40 1.0 or less 1.5 or less None None to Dense cover Abundant litter 3 to 5 months	EXCELLENT GOOD 100-90% Productivity 90-73% Productivity 1 2 60% 80% or by sime as 40% percenta or by sime as 40% percenta or by sime as 40% percenta or as atom or icss as atom or icss as icss icss icsor less <	EXCELLENT 100-90% Productivity 1 GOOD 22 Kander Comprision 20-75% Productivity 1 FAIL 2 60% or less 21 2 1 60% or less 80% or less 50% or less More 40% 90 50% or less More 40% 90 20% or less More 40% 90 90% or less More 40% 90% or less 20% or less More 40% 90% or less 20% or less More 40% 90% or less 10% or less 10% brance 10% brance Less 10% brance 10% brance 10% brance 10% brance Less brance 10% 10% brance 15% brance 15% brance 50% brance 2.0-30 2.25-40 4.0-6.0 1.0 or less 1.5 or less 2.5 or less None None to slight None to more Dense cover (grading down to) Abundant litter 3 to 5 months	EXCELLENT 100-90% Productivity 1 GOOD 21 FAIR 2 60% or less 90-75% Productivity 1 75-50% Productivity 1 75-50% Productivity 1 60% or less 80% or less 80% or less 50% by same solution 1 css 50% me as column 1 40% or 90% by same solution less 80% or less 50% by same solution 1 css 50% me as column 1 40% or 90% by same solution 1 css 20% by same solution 1 css More me as wave gravity 1 css More me as wave gravity 1 css 40% or 90% by same solution 1 css 20% by same solution 1 css More more solution 1 css More me as wave gravity 1 css 10% than 10% by same solution 1 css 20% by same solution 1 css Less 1 css Less 1 css 2.0-30 10% 2.25-40 4.0-6.0 2.0-30 10% 2.25-40 4.0-6.0 2.0-30 10% 2.25-40 4.0-6.0 2.0-30 10% 1.5 or less 2.5 or less None None to slight None to moderate Pense cover (grading down to) 3 to 5	EXCELLENT 100-90% Productivity GOOD 90-75% Productivity FAIR 75-50% Productivity POC 75-50% Productivity 60% or less 80% or less 80% or less 80% or by 50 by 50 by 50 c 80% or by 50 by 50 c 1 2 60% or less 80% or 80% or by 50 c 80% or by 50 c 1 2 60% or by 50 c 80% or by 50 c 80% or by 50 c 1 1 60% or by 50 c 20% c by 50 c 1 1 2 60% or by 50 c 20% c 1 1 1 1 0r or 1 50% c 1 1 1 0r more c 20% c 1 1 1 1 or nore c 1 1 1 1 0 c 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 <t< td=""></t<>	

•Acres per Animal Unit Month. Open grassland without waste land. #Areas with wasteland.

Accession (Print)

TYPE: Timber-Mixed Grass-Browse

				0	_		-					-				
Common Name	Boranical Name	the t Gram	kid Srasi	call Gras	be a le	less Jestrahle	Judesirable	Journant	May be Dominant	seldoni Dominant	Ce ul Scason	Varu) หลรงก	Sunch	Sra	Latapili Horses	Using Using
All 15 mane	Sucrobolus aireides	0.0	20	μC	-			24	~ ~	v	00	N N	v v	0.0	50	40
Alkali sacaton	Andronomon furgatus		А	x	\$	~				x		x	~	x	70	50
Blue grama	Bouteloua gracilis	x		~	X			х				x	N		80	70
Ruffalourace	Buchloc ductyloides	x			x			x				X		x	80	80
Canada bluegrass	Poa compressa		х		X				х		х			х	70	60
Canada wildrye	Elymus canadensis			х	x					х	х		х		30	30
Crested wheatgrass	Agropyron cristatum		x		x			x			х		х		70	50
Feather bunchgrass	Stipa viridula		х		х				х		х		х		60	40
Foxtail barley	Hordeum jubatum		х				х		x		x		х		20	10
Hairy grama	Bouteloua hirsuta	х			x				x			х	x		80	70
Indian ricegrass	Oryzopsis hymenoides		х			х			х		х		х		50	20
Inland saltgrass	Distichlis stricta	Х			_	_	Х		1		х			Х	20	10
Iuncgrass	Kocleria cristata	х			х					х	х		x		60	50
Kentucky bluegrass	Poa pratensis		х		х			х			Х			х	70	60
Little blucstcm	Andropogon scoparius	_	X	-		х			Х			х	X		20	10
Marsh muhly	Muhlenbergia racemosa		х			х				х		х		х	40	20
*Needle and thread	l Stipa comata		х		х				х		х		х		60	40
Niggerwool	Carex filifolia	x		_	х				x		х		x		80	70
Porcupincgrass	Stipa spartca		х			x				х	х		х		40	20
Prairie cordgrass	Spartina pectinata			х		х				х		х		x	10	
Prairie dropseed	Sporoholus heterolepis		х		_	х	_		x			x	x		50	40
Prairie muhly	Muhlenbergia cuspidata		х			х				х	x	х		х	40	
Prairie sandgrass	Calamovilfa longifolia			х		х		х				x		х	20	-10
Red threeawn	Aristida longiscta		X				x		_	x	x		x	_	2	
Sand dropseed	Sporobolus cryptandrus		х			х				х		х	х		40	20
Sand blucstem	Andropogon hallii			х		х				x		х		x	40	30
Sidcoats grama	Bouteloua curtipendula		x		x					.X	_	X	_	X	70	50
Slender wheatgrass	Agropyron trachycaulum		x		х				х		X		х		/0	20
Smooth brome	Bromus inermis		X		х				x		x			х	20	20
Squirreltail	Sitanion hystrix		x		_	x	_			x	x		x		50	20
Switchgrass	Panicum virgatum			х	х					х		x		х	50	30
Timber oatgrass	Danthonia interinedia		х		x					x	x		x		80	20
Timothy	Phleum pratense			x	x				л		X				10	10
Tumblegrass	Schedonnardus paniculatus	x					х			x	v	x	x		7	60
Upland sedges	Carex spp.	x			х					×	X		×		4	30
western nuegrass	roa secunda	X		_						~			л	v	70	50
western wheatgras	s Agropyron smithi		X		X	_		х			7	_		х	70	J.

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Classification of Important Perennial Grasses and Sedges for Range/Pasture Condition Guides-Western South Dakota

"Less desirable on sheep range. 140% for catle and horses in standhills.

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							e e		_					Palatability Rating		
Соттол Name	Botanical Name	Nort Gra	Mid-gra	Tail Grass	Desirable	Less Desteable	Undestra	Usually Dominan	May be Dominan	seldom Dominan	Conl Season	Warm Scason	Bunchgra	Soud	Cattle Horses	Sheep Goats
Big bluestem *Blue grama *Buffaløgrass	Andropogon furcatus Bouteloua gracilis Buchlee dactyloides	x x		x	X X X			x x	х			x x x	x	x x	70 80 80	50 70 80
Canada bluegrass Canada wildryc Crested whcatgrass	Poa compressa Elymus canadensis Agropyron cristatum		x x	x	x x	x		X X		х	x x x		x x	х	70 30 70	60 30 50
Feather bunchgrass Foxtail barley Indiangrass	Stipa viridula Hordeum jubatum Sorghastrum nutans		X X	x	х	x	х		x	x x	x x	x	X X	x	60 20 -10	40 10 10
Inland saltgrass Juncgrass Kentucky bluegrass	Distichlis stricta Ko el eria cristata Poa pratensis	x x	x		x x		х	x	х	x	X X X		x	x	20 60 70	10 50 60
†Little bluestem Lowland sedges Needle and thread	Andropo gon scoparius Carex spp. Stipa comata		x	x	x x	x			X X X		X X	х	x	x	70 50 60	50 10 -10
Niggerwool Porcupinegrass Prairie cordstass	Carex tilifolia Stipa spartea Spartina pectinata	x	х	x	x x	x			x	х	x x	x	x x	x	80 40 10	70 20 0
Prairie dropseed Prairie muhly Prairie sandgrass	Sporobolus heterolepis Muhlenbergia cuspidata Calamovilfa longifolia		X X	x		X X X		x	Х	x		x x x	x x	x	50 -10 20	-10 0 10
Quackgrass Reed canarygrass Sand dropseed	Agropyron repens Phalaris arundinacea Sporobolus cryptandrus		x x	x	X X	x		x	x	x	x	x x	x	x x	60 80 40	40 60 20
Sideoats grama Slender wheatgrass Smooth brome	Bouteloua curtipendula Agropyron trachycaulum Bromus inermis		x x x		X X X			x	x	х	x	x	x	x	70 7● 80	50 50 50
Switchgrass Tall dropsced Upland sedges	Panicum virgatum Sporobolus asper Carex spp.	x	x	x	X X X					x x x	x	x x	x	x	50 40 70	30 10 60
Western wheatgrass	Agronvron smithii		X	_	X			х			x			x	70	50

Classification of Important Perennial Grasses and Sedges for Range/Pasture Condition Guides-Eastern South Dakota

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*Less desirable in Area 1.

fless desirable west of James river, 20-10 palatability.

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RANGE CONDITION CHECK SHEET Western South Dakota

Work Unit	Location											
Operator(s)	Address											
T. R. Sec Date	Sec Date Examiner(s)								_			
Type: Mixed grass Barllands	S	cabla	and		Т	imbe	r		Go	Back	_	
Seeded Sandhills Sagebrus	h	В	аг гел			Copo	grapl	hy	_		_	1112
Range Condition: Excellent Good Vegetation Percentages circle percentages Desirable short grasses Desirable mid-tall grasses Less desirable plants Undesirable plants Stocking Rate acres per animal unit mon $3\frac{1}{2}$, 4, $4\frac{1}{2}$, 5, $5\frac{1}{2}$, 6, $6\frac{1}{2}$, 7, $7\frac{1}{2}$, 8	in eac 5 10 5 10 5 10 5 10 5 10 6 10 6 10 6 9, 10	h gro 15 15 15 15 15 rele o , Ove	20 20 20 20 20 20 20 20 20 20 20 20 20 2	25 25 25 25 25 25	30 30 30 30 30 30	40 40 40 40 11/4,	50 50 50 50 1½,	60 60 60 60 1 ¾ ,	d Co 70 70 70 70 2, 21	80 80 80 80 80 80 80	90 90 90 90	- % 100 100 100 100 %, 3,
Accelerated Erosion: None Slight	-	Mo	derat	e	-	Sever	e	•				
Stockwater Situation: Excellent	bod		Fair		P	oor _						
Current Forage Use_Percent 0	5 10	15	20	25	30	40	50	60	70	80	90	100
Remarks:					_	_	_		_	_		_

Principal Plant Species-Grouped by Classification

Short Grasses Total Percent Blue grama Buffalograss Inland saltgrass Junegrass Upland sedge Western bluegrass Mid.Grasses Total Crested wheatgrass Foxtal barley Ken/Can bluegrass Little bluestem Needle and thread Prairie muhly Red threeawn Sand dropseed Sideoats grama Smeet b brome	Perennial Weeds Total Percent Asters Blazing star Brearfroot Buffalo bean Goldenrod Green sage Hairy goldenaster Iron plant Locos Lupine Pentstemon Phlox Prairie clover Purple coneflower Silverpea Skeleton plant White sage Wild alfalfa Yellow coneflower Annual Grasses/Weeds	Half Shrubs Total Percent Fringed sage
Smooth brome	Total	Willow
Tall Grasses Total Big bluestem Feather bunchgrass Prairie cordgrass Prairie sandgrass Switchgrass	Jowny brone Japanese brome Little barley Pigeongrass Sixweeks fescue Gumweed Peppergrass Russian thistle Sunflowers	American elm Box elder Burr oak
Uther Grasses Total	Uther weeds 1 otal	Other Shrubs 1 otal

RANGE/PASTURE CONDITION CHECK SHEET Eastern South Dakota

12.

Date	Examiner								i	No.		1		
County				Т.				R				ec.		
Type: Tall grass			S h	ert g	rass			Seede	d		Go	-Back	·	
Sandhills	- **													
Range/Pasture con	dition: Excellent		Geed	1		Fair		P	oor		Co	over .		- %
Vegetation Percent	ages-circle percentag	e in	n cach	gro	up.									
Desirable short gra	sses	. 5	10	15	20	25	30	40	50	60	70	80	90	100
Desitable mid-gras	ses/legumes	. 5	10	15	20	25	30	40	50	60	70	80	90	100
Desirable tall grass	ses	. 5	10	15	20	25	30	40	50	60	70	80	90	100
Less Desirable plan	nts	. 5	10	15	20	25	30	40	50	60	70	80	90	100
Undesirable plants		. 5	10	15	20	25	30	40	50	60	70	80	90	100
Stocking Rate ac. 21/4, 21/2, 2	res per animal unit m 34, 3, 3½, 4, 4½, 5, c	on the	n cir 5.	clc o	ne: 1	/10,	⅓,	1/3, 1/	á, ½,	34,	1, 13	4, 1	/2,13	4, 2,
Accelerated Erosio	n: None S	ligł	nt		N	loder	ale .			Seve	erc			
Grassland Used for	r: Pasture Cat	tle .		Sh	ccp.		He	orses		_ F	Iaylaı	nd .		
Degree of Grazing	: Light Me	ode	rate .			Hea	vy		-	Seve	ere			
Remarks:										_				

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Principal Plant Species-Grouped by Classification

Perc	cnt Percent	Percent
Short Grasses Total	Tall Grasses (cont.)	Dandelion
Blue grama	Indiangrass	Death camas
Buffalograss		Fleabanc daisy
Inland saltgrass	Prairie cordgrass	Goldenrod
Junegrass	Prairie sandgrass	Green sage
Short Sedges Total	Reed canary grass	Hairy goldenaster
Niggerwool	Switchgrass	Horsetail
Upland sedge	Tall Sedge Total	Iren plant
Mid-Grasses Total	Mcadew sedge	Larkspur
Crested wheat grass	Other grasses and sedges	Leafy spurge
Foxtail barley		Marsh elder
Ken/Can bluegrass	Legumes Total	Phlex
Little bluestcm	Altalfa	Prairie mallow
Needleand-thread	Red clover	Purple concflower
Quackgrass	Sweet clover	Pussy toes
Prairie muhly	White clover	Scarlet guara
Prairie dropseed	Loces	Silver sage
Sand dropseed	Lupine	Skeleton wccd
Sidcoats grama	Prairie clover	Thistle
Smooth brome	Silver pea	Yarrow
Tall dropseed	Wild altalta	Other perennial weeds
Western wheatgrass	Vetch	A a puel weeks / grasses Total
Medium Sedges Total	Perennial Weeds Total	Allituat weeds/glasses 1 otal
Lowland sedge	Asters	Downy brome
Spike rush	Beardtongue	Japanese brome
Tall Grasses Total	Blazing star	Gumweed
Big bluestem	Blue vervain	Russian thistle
Canada wildrye	Brcadroot	Sixweeks fescue
Fcather bunchgrass	Creeping Jenny	Sunflowers