

FIELD OFFICE TECHNICAL GUIDE: BLACK HILLS TECHNICAL GUIDE
LOCATION:
AREA:
STATE: SOUTH DAKOTA

RANGE SITE DESCRIPTION

RANGE SITE NAME . : SUBIRRIGATED

RANGE SITE NUMBER : 062XY003SD

ORIGINAL DATE ... : 05/13/1992

REVISION DATE ... : 05/13/1992

AUTHOR'S INITIALS : RDB/DWS

* SOIL NARRATIVE:

THESE ARE DEEP POORLY DRAINED SOILS FORMED IN ALLUVIAL MATERIAL WEATHERED FROM SLATE, QUARTZITE AND SCHIST. SURFACE AND SUBSURFACE TEXTURE IS LOAM. PERMEABILITY IS MODERATELY SLOW. THESE SOILS ARE FOUND ON FLOOD PLAINS IN MOUNTAIN VALLEYS.

* LIST OF SOIL TAXONOMIC UNITS OR SOILS MAPPING UNITS FOR ALL SOILS INCLUDED IN THIS SITE:

MARSHDALE LOAM

MARSHBROOK LOAM

* LANDSCAPE FACTORS

PHYSIOGRAPHY:

ELEVATION/ASPECT:

LOW 3500 ft /

HIGH 7200 ft /

PERCENT SLOPE:

LOW 0

HIGH 4

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* CLIMATE FACTORS

FREEZE-FREE PERIOD (FFP): 0 TO 0 (DAYS)
 FROST-FREE PERIOD: 111 TO 123 (DAYS)
 MEAN ANNUAL PRECIPITATION (MAP): 18 TO 26 (INCHES)
 MEAN ANNUAL AIR TEMPERATURE (MAAT): 34 TO 55 (F)
 MEAN ANNUAL SOIL TEMPERATURE (MAST): 32 TO 57 (F)

MOISTURE AND TEMPERATURE DISTRIBUTION:

	-JAN---	FEB---	MAR---	APR---	MAY---	JUN---	JUL---	AUG---	SEP---	OCT---	NOV---	DEC---
- PPT -												
HIGH	4.78	4.32	4.79	7.82	15.31	10.02	8.78	7.77	5.08	3.28	6.30	3.51
MEAN	1.13	1.10	1.75	3.10	4.02	4.07	2.56	2.00	1.86	1.47	1.26	1.09
LOW	0.00	0.17	0.52	0.45	0.47	0.81	0.43	0.22	0.04	0.00	0.03	0.19
- TEMP -												
HIGH	33	35	41	51	61	72	81	79	69	58	44	36
MEAN	23	25	30	41	50	60	68	67	57	47	34	27
LOW	14	16	20	30	39	49	56	54	45	36	25	18

* VEGETATION FACTORS - CLIMAX PLANT COMMUNITY

RANGE SITE DESCRIPTION NARRATIVE:

THE POTENTIAL NATIVE VEGETATION ON THIS SITE IS A STAND OF TALL GRASSES. NORTHERN OR BLUEJOINT REEDGRASS AND PRAIRIE CORDGRASS HAVE THE POTENTIAL TO DOMINATE THE SITE. BIG BLUESTEM, SWITCHGRASS AND INDIANGRASS ARE TALL, WARM SEASON SPECIES WHICH ARE PRESENT ON THE SITE BUT WILL USUALLY NEVER BE DOMINANTS. BLUEGRASSES AND SEDGES ARE FOUND IN THE UNDERSTORY. FORBS SUCH AS GOLDENROD ARE PRESENT BUT ONLY IN SMALL AMOUNTS. WILLOWS AND WHITE SPRUCE ARE TREES COMMONLY FOUND SCATERED THROUGHOUT THE SITE.

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PERCENT COVER:

GROUND COVER AND STRUCTURE:

	% CANOPY COVER (VERTICAL VIEW)	AVERAGE HEIGHT (FT)	% BASAL AREA COVER
GRASSES AND GRASSLIKES	80	3.50	75
FORBS	5	2.00	3
CRYPTOGAMS	0	0.00	0
SHRUBS	0	0.00	0
TREES	10	20.00	5

PLANT COMMUNITY COMPOSITION AND PRODUCTION:

Herbaceous

Grasses and grasslikes

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
ANGE	BIG BLUESTEM	1	0 to 0	10 to 20
PAVI2	SWITCHGRASS	1	0 to 0	10 to 20
SONU2	INDIANGRASS	1	0 to 0	10 to 20
POA++	BLUEGRASSES	0	0 to 15	0 to 0
STCO3	COLUMBIA NEEDLEGRASS	2	0 to 0	0 to 5
STRI2	RICHARDSEN NEEDLEGRASS	2	0 to 0	0 to 5
STVI4	GREEN NEEDLEGRASS	2	0 to 0	0 to 5
CACA4	BLUEJOINT REEDGRASS	3	0 to 0	25 to 40
CAIN	NORTHERN REEDGRASS	3	0 to 0	25 to 40
SPPE	PRAIRIE CORDGRASS	0	0 to 10	0 to 0
CAREX	SEDGES	0	0 to 10	0 to 0

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Forbs

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
SOMI2	MISSOURI GOLDENROD	1	0 to 0	0 to 10
SORI2	STIFF GOLDENROD	1	0 to 0	0 to 10

Trees

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
SALIX	WILLOW	1	0 to 0	0 to 10
PIGL	WHITE SPRUCE	1	0 to 0	0 to 10

Production

Grasses and grasslikes: 80 to 100 % of total
 Forbs: 0 to 10 % of total
 Shrubs: 0 to 0 % of total
 Trees: 0 to 10 % of total
 Lichen community: 0.00 lbs/acre (NOT ANNUAL PRODUCTION)
 Moss community: 0.00 lbs/acre

Cover

Lichen community: 0 % cover
 Moss community: 0 % cover

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* PLANT GROWTH CURVES

ID	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
NUMBER: SD0001	0	0	5	15	30	25	5	5	10	5	0	0
NAME: 100% COOL SEASON SPECIES												
DESC: 100% OF PRODUCTION PROVIDED BY COOL SEASON SPECIES												
NUMBER: SD0002	0	0	5	15	25	20	15	10	7	3	0	0
NAME: 75% COOL, 25% WARM												
DESC: 75% OF PRODUCTION FROM COOL SEASON PLANTS, 25% FROM WARM SEASON PLANT												
NUMBER: SD0003	0	0	5	15	20	20	20	10	7	3	0	0
NAME: 50% WARM, 50% COOL SEASON												
DESC: 50 % OF PRODUCTION FROM COOL SEASON PLANTS, 50% FROM WARM SEASON												
NUMBER: SD0004	0	0	5	5	15	25	30	10	7	3	0	0
NAME: 75% WARM, 25% COOL SEASON												
DESC: 75% OF FORAGE PRODUCED BY WARM SEASON PLANTS, 25% FROM COOL SEASON												
NUMBER: SD0005	0	0	0	0	10	35	30	20	5	0	0	0
NAME: 100% WARM SEASON PLANTS												
DESC: 100% OF PRODUCTION IS FROM WARM SEASON PLANTS												

* TOTAL ANNUAL PRODUCTION (EXCELLENT CONDITION)

FAVORABLE 5400 TO 5700 lbs/acre

AVERAGE 4500 TO 4800 lbs/acre

UNFAVORABLE 3200 TO 3500 lbs/acre

LIVESTOCK DATA

* ESTIMATED STOCKING RATE

EXCELLENT 0 TO 0 AC/AU OR 2.3100 TO 2.9000 AUM/AC

GOOD 0 TO 0 AC/AU OR 1.6600 TO 2.3000 AUM/AC

FAIR 0 TO 0 AC/AU OR 0.9760 TO 1.6500 AUM/AC

POOR 0 TO 0 AC/AU OR 0.3250 TO 0.9750 AUM/AC

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* WILDLIFE SPECIES LIST:

WHITE-TAILED DEER	MULE DEER
TURKEY	RUFFED GROUSE
ELK	RED SQUIRRELS
ANTELOPE	
SHARP TAILED GROUSE	RACCOONS
SKUNKS	COYOTES
RED AND GRAY FOX	BOBCATS
GOLDEN EAGLES	RED-TAILED HAWK
BEAVER	
MINK	

* RANGE SITE DEGRADATION:

WITH CONTINUED OVERUSE THE REEDGRASSES, PRAIRIE CORDGRASS AND BIG BLUESTEM THIN OUT AND ARE REPLACED BY BLUEGRASSES AND SEDGES. AS THIS SITE HAS ADEQUATE MOISTURE TO MAINTAIN A SOLID PLANT COVER THE PLANT COMMUNITY WILL STABILIZE AT THIS POINT. THE NET RESULT IS A DRAMATIC REDUCTION IN FORAGE PRODUCTION, SEVERELY DEPLETED WILDLIFE HABITAT VALUES AND THE POTENTIAL FOR WATER QUALITY DEGRADATION.

* TYPICAL LOCATION:

TO BE ENTERED LOCALLY.

