

FORAGE SUITABILITY GROUP

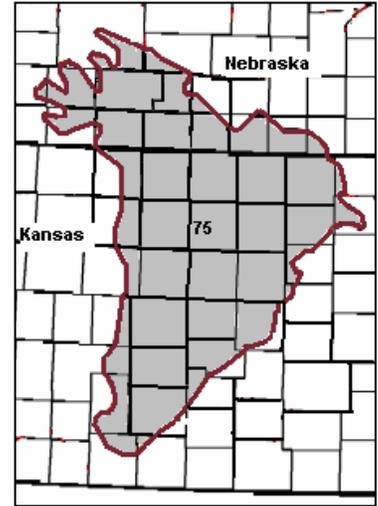
Closed Upland Depression

FSG No.: G073XY910KS
Major Land Resource Area: 073X -Rolling Plains and Breaks

Physiographic Features

These soils are found in depressions on uplands and stream terraces.

	<u>Minimum</u>	<u>Maximum</u>
Elevation (feet):	1600	3000
Slope (percent):	0	1
Flooding:		
Frequency:	None	None
Duration:	None	None
Ponding:		
Depth (inches):	3	6
Frequency:	Occasional	Frequent
Duration:	Brief	Long
Runoff Class:	Negligible	Negligible



Climatic Features

Average annual precipitation for all climate stations listed below in MLRA 73 is about 24 inches. About 75 percent of that precipitation falls during the months of April through September. On average there are about 28 days during that period that receive greater than .1 inches.

Average annual snowfall ranges from 12 inches at Ness City, KS, to 28 inches at Culbertson, NE. Days with snow cover at depths greater than 1 inch range from a low of 5 per year at Ness City to a high of 38 at Culbertson.

Average January temperatures are about 26 degree F., and average July temperatures are about 79 degrees. Recorded temperature extremes for the listed climate stations during the years 1961 to 1990 are a low of -35 at Medicine Creek Dam in Nebraska and a high of 114 at Ness City, KS. The MLRA lies in USDA Plant Hardiness Zones 5a, 5b, and 6a.

It is cloudy an average of 124 days a year at Dodge City, KS, and 141 days at North Platte, NE. Average annual wind speeds are about 14 MPH at Dodge City and 10 at North Platte. At Dodge City in June average morning relative humidity is about 80 percent and average afternoon relative humidity is about 52 percent. At North Platte they are 84 percent and 57 percent respectively.

The climate data listed in the tables below represent high and low ranges and averages for the climate stations and dates listed. For additional climate data access the National Water and Climate Center at <http://www.wcc.nrcs.usda.gov>

	From	To
Freeze-free period (28 deg)(days): (9 years in 10 at least)	143	196
Last Killing Freeze in Spring (28 deg): (1 year in 10 later than)	May 10	Apr 15
Last Frost in Spring (32 deg): (1 year in 10 later than)	May 21	Apr 29
First Frost in Fall (32 deg): (1 year in 10 earlier than)	Sep 13	Oct 07

First Killing Freeze in Fall (28 deg): (1 year in 10 earlier than)	From Sep 24	To Oct 20
Length of Growing Season (32 deg)(days): (9 years in 10 at least)	122	170
Growing Degree Days (40 deg):	5276	6985
Growing Degree Days (50 deg):	3183	4392
Annual Minimum Temperature:	-20	-5
Mean annual precipitation (inches):	21	28

Monthly precipitation (inches) and temperature (F):

2 years in 10:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Precip. Less Than	0.11	0.12	0.37	0.99	1.77	1.48	1.58	1.54	0.80	0.50	0.21	0.20
Precip. More Than	0.80	1.27	3.10	3.51	5.56	5.22	5.44	5.14	5.37	3.13	1.81	1.16
Monthly Average:	0.45	0.59	1.78	2.14	3.63	3.59	3.22	2.90	2.49	1.57	0.96	0.60
Temp. Min.	9.9	15.3	23.2	33.9	44.9	55.1	61.2	58.6	48.0	34.1	22.2	13.0
Temp. Max.	41.8	48.0	57.9	69.6	78.4	88.6	94.3	91.9	82.8	72.5	56.1	44.4
Temp. Avg.	25.9	31.1	40.9	52.7	62.5	72.8	78.7	76.1	66.6	54.8	40.5	29.5

<u>Climate Station</u>	<u>Location</u>	<u>From</u>	<u>To</u>
KS0693	Beliot, KS	1961	1990
KS2164	Dodge City, KS	1961	1990
KS3100	Glen Elder Lake, KS	1961	1990
KS3218	Great Bend, KS	1961	1990
KS3527	Hays, KS	1961	1990
KS4357	Kirwin, KS	1961	1990
KS4857	Lovel Lake, KS	1961	1990
KS4982	Mankato, KS	1961	1990
KS5692	Ness City, KS	1961	1990
KS6374	Phillipsburg, KS	1961	1990
KS6435	Plainville, KS	1961	1990
KS8648	Webster Dam, KS	1961	1990
NE2065	Culbertson, NE	1961	1990
NE3035	Franklin, NE	1961	1990
NE5388	Medicine Creek Dam, NE	1961	1990

Soil Interpretations

This group consists of poorly and somewhat poorly drained soils. They have a watertable near the surface during a portion of the growing season.

Drainage Class:	Poorly drained	To	Moderately well drained
Permeability Class: (0 - 40 inches)	Very slow	To	Very slow
Frost Action Class:	High	To	High

Forage Crop	Management Intensity	
	<u>Low</u> (lbs/ac)	<u>High</u> (lbs/ac)
Creeping foxtail	2900	7100
Reed canarygrass	2900	10000

Forage Growth Curves

Growth curves estimate the seasonal distribution of growth of the various forage crops. They indicate when the forages may be available for grazing or mechanical harvest.

Growth Curve Number: KS0003
Growth Curve Name: Warm-season grass
Growth Curve Description: Statewide

<u>Percent Production by Month</u>											
<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
0	0	0	0	15	35	30	15	5	0	0	0

Growth Curve Number: KS0006
Growth Curve Name: Cool-season grass fertilized early
Growth Curve Description: MLRAs 73, 72 dryland

<u>Percent Production by Month</u>											
<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
0	0	0	10	40	35	0	5	10	0	0	0

Soil Limitations

Wetness

- The over-riding limitation to this soil is wetness. It severely limits species selection.

Management Interpretations

Wetness

- When establishing new stands or renovating stands select species that are highly tolerant of wet soils. To reduce compaction exclude livestock and machinery when soils are wet.

FSG Documentation

Similar FSGs:

<u>FSG ID</u>	<u>FSG Narrative</u>
G106XY895KS	Saline/Sodic soils have elevated salinity and or sodicity.

G106XY910KS	Closed Upland Depressions pond water.
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Inventory Data References:

Agriculture Handbook 296-Land Resource Regions and Major Land Resource Areas
 Natural Resources Conservation Service (NRCS) National Water and Climate Center data
 USDA Plant Hardiness Zone maps
 National Soil Survey Information System (NASIS) database for soil surveys in Kansas and Nebraska counties in MLRA 73
 Kansas and Nebraska NRCS Field Office Technical Guide
 NRCS National Range and Pasture Handbook
 Various Agricultural Research Service, Cooperative Extension Service, and NRCS research trials for plant adaptation and production.

State Correlation:

This site has been correlated with the following states:

KS

NE

Forage Suitability Group Approval:

Original Author: Tim Nordquist

Original Date: 6/29/2002

Approval by: David Kraft

Approval Date: