

# FORAGE SUITABILITY GROUP

Wet “LRU F”

10 - 14” ppt & 70 - 90 Freeze Free Days

**FSG No.: GO13XF034WY**

**Major Land Resource Area (MLRA) :** 13 – Eastern Idaho Plateaus

## Physiographic Features

The area is considered the Eastern Idaho Plateaus with approximately one-fourth of the area being federally owned and the remainder three-fourths being privately owned. The elevation ranges from 4,593 to 6,562 feet (1,400 to 2,000 meters). The area consists of dissected plateaus and plains that are underlain mainly by sedimentary rocks and some volcanic rocks that are mantled by loess on gentle and moderate slopes. The plains are separated by many rugged mountains. There are many valleys and basins located throughout the area. Some of the mountain peaks range in height from 7,546 to 8,530 feet (2,300 to 2,600 meters) with some peaks reaching more than 10,171 feet (3,100 meters).

## Climatic Features

Annual precipitation ranges from 12 - 25 inches per year. Wide fluctuations may occur in yearly precipitation with minimum precipitation occurring from mid-summer to fall. Frost may occur every month of the year. The valleys and basins are used mainly for hay production. There are many naturally occurring meadows in the area. Because precipitation is scarce during the summer months, careful management is needed to make the best use of the limited water. There are several large streams that flow through the area that supply water for irrigation, mainly outside of the MLRA.

There is a wide variation in temperature, predominantly due to the high elevation and dry air which permits rapid incoming and outgoing radiation, and the passage of both warm and cold air masses. Some of their larger tributaries. Ground water is scarce in most of the area.

This is in Land Resource Area “F”. The precipitation in this LRU is 10 to 14 inches and has a freeze free period of 70 to 90 days.

There is a wide variation in freeze free days and precipitation in this MLRA. Please be sure and visit with the local field office for site specific climatic information that is available in the Field Office Technical Guide, Section I, Climatic Data, <http://www.nrcs.usda.gov/technical/efotg/> or refer to the National Water and Climate Center web page at <http://www.wcc.nrcs.usda.gov>.

## Soil Interpretations

This group consists of deep, poorly drained soils on flood plains and along drainage ways. These soils are fine textured soils. Ground water generally fluctuates between 12 to 36 inches. The soils have an Electrical Conductivity (EC) of less than 8mmhos/cm.

The soil survey maps were completed for the purposes of developing plans for tracts of land and can not be used to determine the soils on or the suitability of a specific site. Consequently, small areas of significantly different soils are not identified on the maps and may occur in any map unit.

Refer to Appendix A, Forage Suitability Group Rules in Section II, of the Field Office Technical Guide, Pastureland and Hayland Interpretations for the parameters used in grouping the soils.

## **Soil Map Unit List**

For a complete listing of soil components and what Forage Suitability Group the soil is in, refer to Appendix B, Section II of the Field Office Technical Guide, Pastureland and Hayland Interpretations.

## **Adapted Species List**

Refer to Appendix C, Adapted Species for Forage Suitability Groups in Section II of the Field Office Technical Guide, Pastureland and Hayland Interpretations or access the electronic adapted species list at [http://efotg.nrcs.usda.gov/references/public/WY/10-14\\_INCH\\_PRECIPITATION\\_ZONE\\_ADAPTED\\_SPECIES\\_MATRIX\\_13\\_APPENDIX\\_C.pdf](http://efotg.nrcs.usda.gov/references/public/WY/10-14_INCH_PRECIPITATION_ZONE_ADAPTED_SPECIES_MATRIX_13_APPENDIX_C.pdf). Additional information concerning plant characteristics of a number of the listed species as well as individual cultivars of many of those species can be accessed on the web at <http://plants.usda.gov>.

## **Production Estimates**

Production estimates are based on management intensity (fertility regime, irrigation water management, harvest timing, etc.) and should be considered as estimates only. The estimates should only be used for making general management recommendations. On site production information should always be used for making detailed planning and management recommendations when available.

The high forage production estimates listed below are based on dense, vigorous stands of climatically adapted, superior performing cultivars. They are properly fertilized for high yields, and pest infestations are kept below economic thresholds. Mechanical harvests are managed to maintain stand life by cutting at appropriate stages of maturity and harvest intervals. If grazed, optimum beginning and ending grazing heights are adhered to. Adequate time is allowed for plant recovery before entering winter dormancy under both uses.

The production estimates listed below represent total annual above ground plant production on an air-dry-matter basis. Production on pastures in many instances is species dependent and depends if the pasture is a single species pasture or a mixture of grass species. To convert the information below to AUM's (Animal Unit Months), multiply the pounds per acre by 35 per cent and then divide by 790 (example: assume 2,800 pounds per acre:  $2,800 \times .35 \div 790 = 1\frac{1}{4}$  AUM's).

**Irrigation:** Not Suited

**Dryland:** The expected production for grass would be from 4,500 to 6,500 pounds per acre. The expected production for legumes would range from 3 to 4 tons per acre.

## **Forage Growth Curves**

### **LRU F**

**Growth Curve Number:** WY0012

**Growth Curve Name:** Cool Season Grass

**Growth Curve Description:** Dryland (10 – 14" precipitation)

#### **Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	35	40	10	5	5	0	0	0

**Growth Curve Number:** WY0013  
**Growth Curve Name:** Cool Season Grass  
**Growth Curve Description:** Irrigated (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	20	30	25	15	5	0	0	0

**Growth Curve Number:** WY0006  
**Growth Curve Name:** Legumes  
**Growth Curve Description:** Irrigated (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	10	30	10	30	15	0	0	0

**Growth Curve Number:** WY0007  
**Growth Curve Name:** Legumes/Cool Season Grass  
**Growth Curve Description:** Irrigated (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	10	30	15	15	15	15	0	0	0

**Growth Curve Number:** WY0003  
**Growth Curve Name:** Legumes  
**Growth Curve Description:** Dryland (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	20	25	20	25	5	0	0	0

**Growth Curve Number:** WY0004  
**Growth Curve Name:** Legumes/Cool Season Grass  
**Growth Curve Description:** Dryland (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	10	30	30	15	5	10	0	0	0

**Growth Curve Number:** WY0005  
**Growth Curve Name:** Warm Season Grass  
**Growth Curve Description:** Dryland (10 – 14” precipitation)

**Percent Production by Month**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0		15	40	35	15		0	0	0

## Management

The relationship between soils, vegetation and climate on any given site is historically driven by the ability of the plants to grow and change as conditions warrant and has allowed various species to express themselves naturally. Under agronomic conditions, production-enhancing practices have altered the original limits of the biomass production. The modification of growth factors, customized selection of species and wise use of a variety of management practices have the potential to produce yields and quality far superior to those found in the native state.

These soils when in forage management system should see organic matter at a steady or a slowly climbing state. If erosion from either wind or water is a concern, the current erosion prediction tool should be used to ensure that the erosion concern is addressed properly. Refer to the pasture and hayland planting standard or the forage harvest standard in the Field Office Technical Guide, Section IV for further management information.

These soils usually have a water table between 12 to 18 inches, which will greatly reduce the number of adapted plants. Runoff is usually slow and water and wind erosion hazard is slight. Because of the potential for a high water table the adapted plants for forage production are very limited. Plants with spreading root systems are best adapted.

## FSG Documentation

### Data References:

Agriculture Handbook 296 - Land Resource Regions and Major Land Resource Areas  
Natural Resources Conservation Service, National Water and Climate Center (NWCC)  
National Soil Survey Center, National Soil Information System (NASIS)  
National Range and Pasture Handbook  
Natural Resources Conservation Service, Field Office Technical Guide (FOTG)  
Various Agriculture Research Service (ARS), Cooperative Extension Service (CES), and Natural Resources Conservation Service (NRCS) information on plant trials for adaptation and production.  
"Dryland Pastures in Montana and Wyoming" Species and Cultivars, Seeding Techniques and Grazing Management, Montana State University, EB19

### State Correlation:

This site has been correlated with the following states:

### Forage Suitability Group Approval:

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Original Date: 8/27/02  
Approval by: Paul Shelton  
Approval Date: 10/23/03