

SUITABILITY GROUP C-3

(Subirrigated)

**Description:** Deep, somewhat poorly drained and poorly drained soils with loamy surfaces and subsoils. Surface and subsoil textures range from loamy sands to silty clay loams. A permanent water table is normally present from one to five feet below the surface.

**Limitations:** Soil saturation within the root zone restricts species selection. Wetness during the optimum seeding periods can hinder establishment. Water is at or near the surface during the winter and spring.

**Soils:** Alluvial land, wet  
Calco silty clay loam  
Dillwyn complex  
Elsmere fine sandy loam, complex  
Plevna fine sandy loam, complex  
Platte fine sandy loam  
Wet alluvial land

**Recommended Species:** See chart on next page

LR: 74 & 75  
 SUITABILITY GROUP: C-3

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	8	-	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	8	-	6	7	2-3					FAIR-GOOD
PANNEE	8N	-	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	9	-	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	7	-	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7	-	6	7	1-3					FAIR
NEBRASKA 54	7N	-	6	7	1-3					FAIR
OSAGE	7	-	6	7	1-3					FAIR
SWITCHGRASS	8	-	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	8	-	6	5	1-2					GOOD
KANLON	7	-	8	4	1-2					POOR
PATHFINDER	8N	-	6	5	1-2					GOOD
TRAILBLAZER	8N	-	6	6	1-2					GOOD
COOL SEASON GRASSES										
CREEPING FOXTAIL	6	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	6	-	7	7	1-2					POOR
ORCHARDGRASS	6	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	6	-	7	7	1-2					POOR
REED CANARYGRASS	6	-	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IOREED	6	-	8	6	1-2					POOR
RISE	6	-	8	6	1-2					POOR
TALL FESCUE	6	-	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	6	-	7	4	1					POOR
WHEATGRASS										
TALL	8	-	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	8	-	6	4	1-2					FAIR
WESTERN	8	-	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	8	-	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP C-4

(Sandy Depression)

- Description:** Deep, somewhat poorly drained, and slowly permeable soils with loamy surfaces and clayey subsoils. Surface textures range from loamy fine sands to clay loams. Subsoils range from sandy clay to clays. Surface wetness or a seasonal water table is at or near the surface during the months of October through April.
- Limitations:** Wetness during the dormant season, poor drainage, and slow permeability restricts the species adapted to this subgroup. Temporary ponding and wet soils may hinder seedbed preparation and establishment.
- Soils:** Carwile loam, fine sandy loam, complex

**Recommended Species:** See chart on next page.

\_RA: 74 & 75  
 SUITABILITY GROUP: C-4

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	6S	0	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	6S	0	9	4	2-3					FAIR
MIDLAND	6S	0	9	5	2-3					FAIR
BIG BLUESTEM	5	0	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	5	0	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	8	6	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATINGS OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-1

(Loamy-Moderately Deep)

**Description:** Moderately deep, well drained or moderately well drained soils with loamy surfaces and subsoils. Soils in this subgroup occur on uplands and are underlain by bedrock at depths of 20 to 40 inches.

**Limitations:** Restricted root depth due to bedrock.

**Soils:** Lancaster loam, complex

**Recommended Species:** See chart on next page

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
<b>WARM SEASON GRASSES</b>										
BIG BLUESTEM	6	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	6	7	6	7	2-3					FAIR-GOOD
PANNEE	5	6	6	7	2-3					FAIR-GOOD
INDIANGRASS	6	7	5	7	1-3	0	0	0	5.5-7.5	FAIR
CHEYENNE	6	7	6	7	1-3					FAIR
NEBRASKA 54	5N	6N	6	7	1-3					FAIR
OSAGE	6S	7S	6	7	1-3					FAIR
SIDEDATS GRAMA	8	6	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	8	6	4	5	1-3					GOOD
TRAILWAY	8N	6N	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PATHFINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
<b>COOL SEASON GRASSES</b>										
SMOOTH BROMEGRASS	4	6	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	6	7	7	1					FAIR
LINCOLN	4	6	7	7	1					FAIR
SOUTHLAND	4	6	7	7	1					FAIR
TALL FESCUE	4	7	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	4	7	7	4	1					POOR
<b>WHEATGRASS</b>										
TALL	5	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	6	6	4	1-2					FAIR
WESTERN	6	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	7	5	5	1-3					GOOD
<b>LEGUMES</b>										
ALFALFA (STANDARD)	4	7	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	3	6	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-2

(Limy-Moderately Deep)

**Description:** Moderately deep, well drained or moderately well drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on uplands and have calcareous surface and subsurface layers and are underlain with calcareous bedrock at depths of 20 to 40 inches.

**Limitations:** Soils in this subgroup are slightly affected by limy surfaces and subsoils and have a restricted root depth

**Soils:** Clime silty clay, silty clay loam  
Wakeen silty clay loam

**Recommended Species:** See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	0	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
RAW	6	0	6	7	2-3					FAIR-GOOD
PANNEE	5N	0	6	7	2-3					FAIR-GOOD
INDIANGRASS	6	0	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	0	6	7	1-3					FAIR
NEBRASKA 54	5N	0	6	7	1-3					FAIR
OSAGE	6S	0	6	7	1-3					FAIR
SIDEDATS GRAMA	8	0	3	5	1-3	0-	0	0	6.0-7.5	GOOD
EL RENO	8	0	4	5	1-3					GOOD
TRAILWAY	8N	0	4	5	1-3					GOOD
SWITCHGRASS	6	0	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	0	6	5	1-2					GOOD
PATHFINDER	6N	0	6	5	1-2					GOOD
TRAILBLAZER	6N	0	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	4	0	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	0	7	7	1					FAIR
LINCOLN	4	0	7	7	1					FAIR
SOUTHLAND	4	0	7	7	1					FAIR
WHEATGRASS										
TALL	5	0	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	0	6	4	1-2					FAIR
WESTERN	6	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	0	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	4	0	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	3	0	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-3

(Eroded Clay)

**Description:** Deep, well drained to somewhat poorly drained, eroded soils with clayey or thin loamy surfaces and clayey subsoils.

**Limitations:** Stand establishment on these soils is very difficult due to clayey or thin surfaces. Low organic matter will limit fertility and plant production (causing difficult management decisions).

**Soils:** Crete silty clay loam, eroded; soils, eroded; soils, severely, eroded  
Hastings fine sandy loam, eroded; silty clay loam, eroded; soils, eroded  
Irwin silty clay loam, eroded  
Ladysmith silty clay loam, eroded  
Smolan silty clay loam, eroded; soils, eroded  
Tully silty clay loam, eroded; soils, severely eroded

**Recommended Species:** See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
<b>WARM SEASON GRASSES</b>										
BIG BLUESTEM	5	6	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	5	6	6	7	2-3					FAIR-GOOD
PANNEE	4N	5N	6	7	2-3					FAIR-GOOD
INDIANGRASS	5	6	5	7	1-3	0	0	0	5.5-7.5	FAIR
CHEYENNE	5	6	6	7	1-3					FAIR
NEBRASKA 54	4N	5N	6	7	1-3					FAIR
OSAGE	5S	6S	6	7	1-3					FAIR
SIDEOTS GRAMA	5	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	5	7	4	5	1-3					GOOD
TRAILWAY	5N	7N	4	5	1-3					GOOD
SWITCHGRASS	5	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	5	7	6	5	1-2					GOOD
PATHFINDER	5N	7N	6	5	1-2					GOOD
TRAILBLAZER	5N	7N	6	6	1-2					GOOD
<b>COOL SEASON GRASSES</b>										
TALL FESCUE	3	7	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	3	7	7	4	1					POOR
<b>WHEATGRASS</b>										
TALL	5	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	6	6	4	1-2					FAIR
WESTERN	5	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	6	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-4

(Clayey)

**Description:** Deep and moderately deep, well drained to somewhat poorly drained soils with loamy or clayey surfaces and clayey subsoils. (If surface texture is loamy, it is less than 14 inches over dense clayey subsoil.)

**Limitations:** Slowly or very slowly permeable clayey subsoils.

**Soils:** Benfield silty clay loam  
Bethany silt loam  
Butler silt loam  
Crete silt loam, silty clay loam  
Edalgo silty loam, silty clay loam, complex  
Goessel silty clay  
Irwin silty clay loam, complex  
Labette silty clay loam  
Ladysmith silty clay loam, complex  
Rosehill silty clay  
Tabler clay loam, silty clay loam, silt loam

**Recommended Species:** See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
AAW	6	7	6	7	2-3					FAIR-GOOD
PANNEE	5N	6N	6	7	2-3					FAIR-GOOD
INDIANGRASS	6	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	7	6	7	1-3					FAIR
NEBRASKA 54	5N	6N	6	7	1-3					FAIR
OSAGE	6S	7S	6	7	1-3					FAIR
SIDEGATS GRAMA	7	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	7	7	4	5	1-3					GOOD
TRAILWAY	7N	7N	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PATHFINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	4	6	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	6	7	7	1					FAIR
LINCOLN	4	6	7	7	1					FAIR
SOUTHLAND	4	6	7	7	1					FAIR
TALL FESCUE	4	7	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	4	7	7	4	1					POOR
WHEATGRASS										
TALL	5	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	6	6	4	1-2					FAIR
WESTERN	6	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BERTON	6	7	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

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4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP G-2

(Sodic)

**Description:** Deep, moderately well drained soils with silty surfaces and dense clay subsoils. These soils contain accumulations of alkali or sodium salts.

**Limitations:** Excessive alkalinity or sodium salts.

**Soils:** Dwight silt loam, silty clay loam

**Recommended Species:** See chart on next page

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
<b>WARM SEASON GRASSES</b>										
BIG BLUESTEM	6	0	5	7						
KAW	6	0	6	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
INDIANGRASS	6	0	5	7	2-3					FAIR-GOOD
OSAGE	6	0	6	7	1-3	0-1	0	0	5.5-7.5	FAIR
SIDEWATS GRAMA	6	0	3	5	1-3					FAIR
EL RENO	6	0	4	5	1-3	0-1	0	0	6.0-7.5	GOOD
TRAILWAY	6N	0	4	5	1-3					GOOD
SWITCHGRASS	6	0	5	5	1-2					GOOD
BLACKWELL	6	0	6	5	1-2	0-2	0	0	5.5-8.0	GOOD
<b>COOL SEASON GRASSES</b>										
SMOOTH BROMEGRASS	4	0	6	7						
ACHENBACH	4	0	7	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
LINCOLN	4	0	7	7	1					FAIR
SOUTHLAND	4	0	7	7	1					FAIR
TALL FESCUE	5	0	6	4	1					FAIR
KENTUCKY 31	5	0	7	4	1	1-2	1-2	0-2	6.2-7.0	POOR
WHEATGRASS										POOR
WESTERN	5	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	0	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP G-3

(Wet Sodic)

- Description:** Deep, somewhat poorly or poorly drained loamy soils with a high sodium absorption ratio. The subsoils range from sandy to clayey and contain a high water table during the winter and/or spring months.
- Limitations:** Choice of plants is limited by high sodium content and moderate salinity. Wetness during a portion of the growing season is common.
- Soils:** Drummond loam, silt loam, complex

Recommended Species: See chart on next page.

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
ALKALI SACATON	7 / 6	0	4	2	2-3	0-1	0	0	6.5-8.0	GOOD
SALTALK	7 / 6	0	5	2	2-3					GOOD
SWITCHGRASS	7	0	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	0	6	5	1-2					GOOD
COOL SEASON GRASSES										
WHEATGRASS										
TALL	7	0	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	7	0	6	4	1-2					FAIR
WESTERN	5	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	0	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

7 / PRIOR SEEDING EFFORTS ON SALINE SOILS HAVE BEEN NEAR FAILURES.

SUITABILITY GROUP H

(Not Suitable)

**Description:** This group includes various textures and phases of soils and land types which occur on a wide range of slopes and topography.

**Limitations:** Soils in this group are generally too shallow, erosive, gravelly, stony, or rocky; too steep, droughty, wet, clayey, or saline and alkaline for good survival or growth of pasture species.

**Soils:** Breaks  
Clime stony silt loam  
Fluvaquent, clayey  
Hedville stony loam, complex  
Kipson silty clay loam, soils, complex  
Ness silty clay  
Sand dunes, sarpy material  
Sogn rocky clay loam, silty clay loam, complex

**Recommended Species:** See Standards and Specifications for Critical Area Planting (342).