

**CRP GRASS MIXES 33rd SIGN-UP
WESTERN NORTH DAKOTA - MLRA's 53, 54, 58
CPI PERMANENT INTRODUCED GRASSES AND LEGUMES**

10 Points: Planting of 2 to 3 species of an introduced grass

Species	% of mix	Full Rate	PLS lb./ac.
1 (Limited to slopes less than 6%)			
Tall Wheatgrass	25%	11.0	2.8
Intermediate Wheatgrass	25%	8.5	2.1
Alfalfa	50%	5.5	2.8
	100%		
2			
Smooth Bromegrass	25%	6.5	1.6
Intermediate Wheatgrass	25%	8.5	2.1
Alfalfa	50%	5.5	2.8
	100%		
3 (Limited to slopes less than 6%)			
Crested Wheatgrass	20%	6.0	1.2
Intermediate Wheatgrass	30%	8.5	2.0
Alfalfa	50%	5.5	2.8
	100%		

Other. Requires Area/State Office approval prior to assigning points. Grass mixture must meet conservation practice Standard 327, Conservation Cover. Legume can not exceed 50%

40 Points: Mixture (minimum of 4 species) 3 introduced grasses and 1 forb or legume best suited for wildlife in the area.

4 (Limited to slopes less than 6%)			
Tall Wheatgrass	40%	11.0	4.4
Intermediate Wheatgrass	20%	8.5	1.7
Slender Wheatgrass	10%	5.0	0.5
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
5			
Tall Wheatgrass	20%	11.0	2.2
Intermediate Wheatgrass	40%	8.5	3.4
Slender Wheatgrass	10%	5.0	0.5
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
6 (Limited to slopes less than 6%)			
Tall Wheatgrass	25%	11.0	2.8
Intermediate Wheatgrass	35%	8.5	3.0
Slender Wheatgrass	20%	5.0	1.0
Alfalfa	20%	5.5	1.1
	100%		

7 (Limited to soils not suitable for Tall Wheatgrass)

Western Wheatgrass	20%		
Intermediate Wheatgrass	50%	8.5	4.3
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		

8 Saline Soils:

Tall Wheatgrass	30%	11.0	3.3
Intermediate Wheatgrass	20%	8.5	1.7
Slender Wheatgrass	20%	5.0	1.0
Western Wheatgrass	20%	8.0	1.6
Sweetclover	10%	3.0	0.3
	100%		

9

Tall Wheatgrass	30%	11.0	3.3
Slender Wheatgrass	20%	5.0	1.0
Western Wheatgrass	40%	8.0	3.2
Sweetclover	10%	3.0	0.3
	100%		

Other. Requires Area/State Office approval prior to assigning points. Grass mixture must meet conservation practice Standard 327, Conservation Cover and be best suited for wildlife in the area. Legume can not exceed 50%

CP2 ESTABLISHMENT OF PERMANENT NATIVE GRASSES

20 Points - Mixed stand (minimum of 3 species) of at least 2 native grass species and at least 1 forb, or legume species beneficial to wildlife.

10 FSG Loamy, Steep Loam, Clayey:

Green Needlegrass	50%	6.0	3.0
Western Wheatgrass	40%	8.0	3.2
Forb or Legume	10%		
	100%		

11 FSG Droughty Loam and Very Droughty Loam:

Little Bluestem	40%		
Prairie Sandreed	50%	4.0	2.0
Forb or Legume	10%		
	100%		

12 FSG Claypan:

Western Wheatgrass	50%	8.0	4.0
Slender Wheatgrass	40%	5.0	2.0
Forb or Legume	10%		
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
13 FSG Sand:			
Western Wheatgrass	45%	8.0	3.6
Sideoats Grama	45%	6.0	2.7
Forb or Legume	10%		
	100%		
14 FSG Overflow:			
Big Bluestem	45%	6.0	2.7
Switchgrass	45%	3.5	1.6
Forb or Legume	10%		
	100%		
15 FSG Limy Upland:			
Little Bluestem	50%	4.0	2.0
Sideoats Grama	40%	6.0	2.4
Forb or Legume	10%		
	100%		
16 FSG Shallow:			
Sideoats Grama	45%	6.0	2.7
Prairie Sandreed	45%	4.0	1.8
Forb or Legume	10%		
	100%		
17 FSG Wet and Subirrigated:			
Big Bluestem	40%	6.0	2.4
Switchgrass	50%	3.5	1.8
Forb or Legume	10%		
	100%		
18 FSG Saline:			
Beardless Wildrye	40%	7.5	3.0
Western Wheatgrass	50%	8.0	4.0
Forb or Legume	10%		
	100%		

Other. Requires Area/State Office approval prior to assigning points. Grass mixture must meet conservation practice Standard 327, Conservation Cover and be beneficial to wildlife in the area.

50 Points - Mixed stand (minimum of 5 species) of at least 3 native grasses and at least 1 shrub, forb, or legume species best suited for wildlife in the area. Producers will need to select another legume, forb, tree or shrub from the Native Legumes, Forbs, and Shrubs listed below.

Species	% of mix	Full Rate	PLS lb./ac.
19 FSG Loamy, Steep Loam, Clayey			
Green Needlegrass	25%	6.0	1.5
Slender Wheatgrass	15%	5.0	0.8
Western Wheatgrass	25%	8.0	2.0
Sideoats Grama	25%	6.0	1.5
Legume/forb/shrub *	10%		
	100%		
20 FSG Droughty Loam and Very Droughty Loam:			
Green Needlegrass	20%	6.0	1.2
Slender Wheatgrass	15%	5.0	0.8
Western Wheatgrass	20%	8.0	1.6
Sideoats Grama	20%	6.0	1.2
Big Bluestem	15%	6.0	0.9
Legume/forb/shrub *	10%		
	100%		
21 FSG Claypan:			
Western Wheatgrass	30%	8.0	2.4
Slender Wheatgrass	30%	5.0	1.5
Little Bluestem	10%	4.0	0.4
Blue Grama	20%	2.0	0.4
Forb or Legume	10%		
	100%		
22 FSG Sand:			
Western Wheatgrass	15%	8.0	1.2
Prairie Sandreed	25%	4.0	1.0
Sand Bluestem	25%	9.5	2.4
Sideoats Grama	25%	6.0	1.5
Legume/forb/shrub	10%		
	100%		
23 FSG Sand:			
Western Wheatgrass	15%	8.0	1.2
Green Needlegrass	20%	6.0	1.2
Sand Bluestem	30%	9.5	2.9
Sideoats Grama	25%	6.0	1.5
Legume/forb/shrub *	10%		
	100%		
24 FSG Overflow:			
Big Bluestem	25%	6.0	1.5
Green Needlegrass	20%	6.0	1.2
Sideoats Grama	20%	6.0	1.2
Switchgrass	25%	3.5	0.9
Legume/forb/shrub *	10%		
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
25 FSG Limy Upland:			
Blue Grama	20%	2.0	0.4
Little Bluestem	25%	4.0	1.0
Sideoats Grama	30%	6.0	1.8
Prairie Sandreed	15%	4.0	0.6
Legume/forb/shrub *	10%		
	100%		
26 FSG Shallow:			
Sideoats Grama	30%	6.0	1.8
Prairie Sandreed	30%	4.0	1.2
Blue Grama	10%	2.0	0.2
Western Wheatgrass	20%	8.0	1.6
Forb or Legume	10%		0.1
	100%		
27 FSG Wet and Subirrigated:			
Big Bluestem	25%	6.0	1.5
Indiangrass	25%	5.5	1.4
Western Wheatgrass	15%	8.0	1.2
Switchgrass	25%	3.5	0.9
Legume/forb/shrub *	10%		
	100%		
28 FSG Saline:			
Beardless Wildrye	30%	7.5	2.3
Slender Wheatgrass	20%	5.0	1.0
Blue Grama	10%	2.0	0.2
Western Wheatgrass	30%	8.0	2.4
<i>Alsike Clover</i>	10%	3.0	0.3
	100%		
or			
Beardless Wildrye	30%	7.5	2.3
Slender Wheatgrass	20%	5.0	1.0
Blue Grama	10%	2.0	0.2
Western Wheatgrass	30%	8.0	2.4
<i>Sweetclover</i>	10%	3.0	0.3
	100%		
or			
Beardless Wildrye	30%	7.5	2.3
Slender Wheatgrass	20%	5.0	1.0
Blue Grama	10%	2.0	0.2
Western Wheatgrass	30%	8.0	2.4
<i>Fourwing Saltbush</i>	10%	6.0	0.6
	100%		

Other. Requires Area/State Office approval prior to assigning points. Grass mixture must meet conservation practice Standard 327, Conservation Cover and be best suited for wildlife in the area. Refer to conservation standard 645, Upland Wildlife Habitat, for species best suited for wildlife.

CP4D Permanent Wildlife Habitat: The national CRP guidelines require a mixed stand of grasses, legumes, forbs, shrubs, or trees. The following mixes are designed to provide grass, legumes best suited for wildlife. Producers will need to select another legume, forb, tree or shrub from the Native Legumes, Forbs, and Shrubs list below. Since each tree or shrub component will need to make up at least a 10% occurrence, it is recommended they be planted in sculptured seeding concept as block(s) throughout the CRP offer.

40 points. Mixed stand (minimum of 4 species) of either grasses, trees, shrubs, forbs, or legumes planted in mixes, blocks, or strips for various wildlife species in the area.

Species	% of mix	Full Rate	PLS lb./ac.
29 DNC mix (Limited to slopes less than 6%)			
Tall Wheatgrass	45%	11.0	5.0
Intermediate Wheatgrass	25%	8.5	2.1
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
30 DNC mix (Limited to slopes greater than 6%)			
Tall Wheatgrass	20%	11.0	2.2
Intermediate Wheatgrass	50%	8.5	4.3
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
31 (Limited to soils not suitable for Tall Wheatgrass)			
Western Wheatgrass	20%	8.0	1.6
Intermediate Wheatgrass	50%	8.5	4.3
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
32			
Intermediate Wheatgrass	25%	8.5	2.1
Switchgrass	45%	3.5	1.6
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
33			
Tall wheatgrass	25%	11.0	2.8
Switchgrass	45%	3.5	1.6
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		
34			
Western Wheatgrass	25%	8.0	2.0
Switchgrass	45%	3.5	1.6
Alfalfa	20%	5.5	1.1
Sweetclover	10%	3.0	0.3
	100%		

Other. Requires Area/State Office approval prior to assigning points. Grass mixture must meet conservation practice Standard 327, Conservation Cover and be best suited for wildlife in the area. Refer to conservation standard 645, Upland Wildlife Habitat Management, for species best suited for wildlife. CP4D point criteria will also need to be met.

50 Points - Mixed stand (minimum of 5 species) of either predominately native species including grasses, forbs, legumes, shrubs, or trees planted in mixes, blocks, or strips best suited to provide wildlife habitat.

Species	% of mix	Full Rate	PLS lb./ac.
35 FSG Loamy, Steep Loam, Clayey:			
Green Needlegrass	20%	6.0	1.2
<i>Big Bluestem</i>	35%	6.0	2.1
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
or			
Green Needlegrass	20%	6.0	1.2
<i>Switchgrass</i>	35%	3.5	1.2
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
36 FSG Loamy, Steep Loam, Clayey:			
Western Wheatgrass	20%	8.0	1.6
<i>Big Bluestem</i>	35%	6.0	2.1
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
or			
Western Wheatgrass	20%	8.0	1.6
<i>Switchgrass</i>	35%	3.5	1.2
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
37 FSG Loamy, Steep Loam, Clayey:			
Slender Wheatgrass	20%	5.0	1.0
<i>Big Bluestem</i>	35%	6.0	2.1
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
or			
Slender Wheatgrass	20%	5.0	1.0
<i>Switchgrass</i>	35%	3.5	1.2
Sideoats Grama	25%	6.0	1.5
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
38 FSG Loamy, Steep Loam, Clayey:			
Big Bluestem	30%	6.0	1.8
Switchgrass	30%	3.5	1.1
Sideoats Grama	20%	6.0	1.2
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
39 FSG Claypan:			
Western Wheatgrass	30%	8.0	2.4
Slender Wheatgrass	30%	5.0	1.5
Blue Grama	20%	2.0	0.4
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
40 FSG Sand:			
Canada Wildrye	20%	6.5	1.3
Prairie Sandreed	30%	4.0	1.2
Sideoats Grama	30%	6.0	1.8
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
41 FSG Sand:			
Western Wheatgrass	20%	8.0	1.6
Prairie Sandreed	30%	4.0	1.2
Sideoats Grama	30%	6.0	1.8
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
42 FSG Sand:			
Canada Wildrye	20%	6.5	1.3
Sand Bluestem	30%	9.5	2.9
Little Bluestem	30%	4.0	1.2
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
43 FSG Droughty Loam and Very Droughty Loam:			
Western Wheatgrass	20%	8.0	1.6
Prairie Sandreed	30%	4.0	1.2
Little Bluestem	30%	4.0	1.2
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
44 FSG Overflow:			
Big Bluestem	30%	6.0	1.8
Green Needlegrass	20%	6.0	1.2
Switchgrass	30%	3.5	1.1
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
45 FSG Overflow:			
Big Bluestem	30%	6.0	1.8
Switchgrass	40%	3.5	1.4
<i>Little Bluestem</i>	10%	4.0	0.4
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
or			
Big Bluestem	30%	6.0	1.8
Switchgrass	40%	3.5	1.4
<i>Prairie Cordgrass</i>	10%	7.0	0.7
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
46 FSG Limy Upland:			
Little Bluestem	30%	4.0	1.2
Sideoats Grama	25%	6.0	1.5
Prairie Sandreed	25%	4.0	1.0
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		
47 FSG Shallow:			
Sideoats Grama	30%	6.0	1.8
Prairie Sandreed	30%	4.0	1.2
Western Wheatgrass	20%	8.0	1.6
Alfalfa	10%	5.5	0.6
Legume/forb/shrub/tree*	10%		
	100%		

Species	% of mix	Full Rate	PLS lb./ac.
48 FSG Wet and Subirrigated:			
Big Bluestem	30%	6.0	1.8
<i>Western Wheatgrass</i>	10%	8.0	0.8
Switchgrass	40%	3.5	1.4
Maximilian Sunflower	10%	1.0	0.1
Legume/forb/shrub/tree*	10%		
	100%		
or			
Big Bluestem	30%	6.0	1.8
<i>Prairie Cordgrass</i>	10%	7.0	0.7
Switchgrass	40%	3.5	1.4
Maximilian Sunflower	10%	1.0	0.1
Legume/forb/shrub/tree*	10%		
	100%		
49 FSG Wet and Subirrigated:			
Big Bluestem	30%	6.0	1.8
Switchgrass	40%	3.5	1.4
<i>Indiangrass</i>	10%	5.5	0.6
Maximilian Sunflower	10%	1.0	0.1
Legume/forb/shrub/tree*	10%		
	100%		
or			
Big Bluestem	30%	6.0	1.8
Switchgrass	40%	3.5	1.4
<i>Prairie Cordgrass</i>	10%	7.0	0.7
Maximilian Sunflower	10%	1.0	0.1
Legume/forb/shrub/tree*	10%		
	100%		
50 FSG Saline:			
Beardless Wildrye	25%	7.5	1.9
Slender Wheatgrass	20%	5.0	1.0
Western Wheatgrass	35%	8.0	2.8
Alsike Clover	10%	3.0	0.3
<i>Fourwing</i>	10%	6.0	0.6
	100		
or			
Beardless Wildrye	25%	7.5	1.9
Slender Wheatgrass	20%	5.0	1.0
Western Wheatgrass	35%	8.0	2.8
Alsike Clover	10%	3.0	0.3
<i>Gardner Saltbush</i>	10%	10.0	1.0
	100%		

OTHER: Requires Area/State Office approval prior to assigning points. Seeding mixture must contain a tall grass component and meet FOTG 327 Standard for soil suitability and 645 Standard for wildlife suitability.

Legume/forb/shrub/tree*	10%
Legume/forb/shrub/tree*	10%

***Native Legumes, Forbs, and Shrubs:** Applicable to CP2 and CP4D. Select from the following native legumes, forbs, or shrubs to add to each native grass mixture. When selecting legume or forb, consider adaptability to each soil type.

Legumes and Forbs	PLS lbs./ac.	Site Adaptability
Maximilian Sunflower	0.1	All except A7, B1, B2, G3, G4, H1
Purple Prairieclover	0.25	All except C1, G3, G4, H1
Canada Milkvetch	0.25	All except C1, G3, G4, H1
American Vetch	0.25	All except C1, G3, G4, H1
Echinacea purpurea	0.25	All except C1, G3, G4, H1
Echinacea angustifolia	0.25	All except C1, G3, G4, H1
Yellow Coneflower	0.05	All except C1, G3, G4, H1
Lewis Blue Flax	0.25	All except C1, G3, G4, H1
Shrubs		
Fourwing Saltbush 'Wytana'	0.1	All except A7, B1, C1
Gardner Saltbush	0.1	All except A7, B1, C1
Winterfat	1.25	All, A2, A3, A4, A6, B1, B2, F1, F2, G1, G2
Leadplant	0.25	dormant seeded
Prairie Rose ^{1,2}	4.5 full rate	All except C1, A5, G3, G4, H1
Western Snowberry ^{1,2}	4.0 full rate	All except A5, A7, C1, G3, G4, H1
Wood's Rose ^{1,2}	4.5 full rate	See windbreak suitability groups
Buffaloberry ^{1,2}	4.2 full rate	seeded
Chokecherry ^{1,2}	3.0 full rate	seeded
Plum ²		See windbreak suitability groups
Sandbar Willow ²		See windbreak suitability groups
Juneberry ²		See windbreak suitability groups
Hawthorn ²		See windbreak suitability groups
<i>Native legumes or forbs available for saline site.</i>		

* Native legumes, forbs, or shrubs preferred; introduced species may be substituted, if adapted natives not available or not cost-effective. No native legumes or forbs available for saline site.

Footnotes:

1/

These woody species can be direct seeded, if seed is available. A sculptured seeding approach should be used when these species are included in grass mix. The area(s) to be direct seeded must be identified on a map and equal in area to at least 10% of the field and exhibit acceptable soils and landscape position.

Western snowberry and wood's rose will not germinate until the following spring after seeding.

The area seeded to shrubs will be mowed in mid-June the first two years following seeding to reduce the shading effect and level of competition. Mowing height must be above the height of the woody species planted.

These sculptured areas of woody species should be planted with approximately 1/2 the seeding rate of the selected grass mix.

2/

Seed sources for these woody species usually are not available and will require planting as seedlings. Seedlings will be planted using a sculptured approach or in block(s). Areas to be planted to shrubs will be identified on a map and equal in area to at least 10% of the field and exhibit acceptable soils and

These areas of woody species should be planted with approximately 1/2 the seeding rate of the selected grass mix.