## CONSERVATION RESERVE PROGRAM: ISSUES AND OPTIONS



## Converting to Pasture or Hay— Forage Seeding Mixtures

## **SUMMARY**

- Renovation may require destroying existing vegetation and reseeding.
- Interseeding and frost seeding are options.

This bulletin is part of a series to help CRP contract holders assess the land-use options available to them when the contracts expire. Complete renovation involves the complete destruction of the existing CRP vegetation and reseeding a more desirable mixture of forage legumes and/or grasses. Where the existing CRP grass is satisfactory, less drastic methods of improving the productivity and nutritive value can be accomplished by interseeding or frost seeding. Seed recommendations for interseeding and frost seeding are referenced in Iowa State

The selection of grasses and legumes is influenced by factors such as average rainfall, soil drainage, erosion hazard, soil pH level, nutrient supply, intended use(s) of the stand, and the length of stand life that fits your needs. Different varieties are available of each type of grass or legume, each having slightly

University Extension publications Interseeding

and No Till Pasture Renovation, Pm 1097, and

Improving Pasture by Frost Seeding, Pm 856.

different traits. A good variety should be a top yielder, have sufficient winterhardiness for your location, and be resistant to the array of plant diseases present in your fields.

Mixtures of legumes and grasses often give the best overall performance for pasture and multi-use hay/pasture meadows. Yields tend to be greater with mixtures than with either a grass or legume alone. Mixtures of two or three well-chosen legumes or grasses are usually more desirable than mixtures that include five or six. Each selected grass and legume in the mixture should have a specific purpose.

Table 1 provides a list of the most frequently used forage seed mixtures in Iowa. It contains mixtures for specific use situations and those most appropriate for sites where soil drainage or other characteristics may limit success.

Table 1. Forage Seed Mixture Recommendations (pounds per acre)\*

## Hay Crops Moderately to well drained, limed or nonacid, fertile soils

1. Alfalfa	12-15	2. Red clover	10-12
3. Alfalfa	8-10	4.Red Clover	8-10
Smooth bromegrass	6-8	Smooth bromegrass	5-6
Orchardgrass	4-6	Orchardgrass	3-4
Reed canarygrass	6-8	Timothy	2-4
Timothy	3-4		

Reviewed and originally prepared by Stephen K. Barnhart, ISU Extension forage agronomist, and Laura Sternweis, ISU Extension communication specialist.

Imperfectly drained,	slightly acid	l soils
5. Alfalfa	5-6	6. Red

5. Alfalfa	5-6	6. Red clover	6-8
Red clover	3-4	Smooth bromegrass	6-8
Smooth bromegrass	6-8	Orchardgrass	4-6
Orchardgrass	4-6	Reed canarygrass	6-8
Reed canarygrass	6-8	Timothy	4-5
Timothy	3-4		

<sup>\*</sup>Italics indicate forage choices to complete the mixture. For example, for mixture #3, mix alfalfa with either smooth bromegrass, orchardgrass, reed canarygrass, or timothy.

(continued on back)

Table 1. continued

Poorly drained soils				
7. Red clover	5-7	8. Alsike clover	4	
Alsike clover	2	Reed canarygrass	6-8	
Smooth bromegrass	6-8	Timothy	4-5	
Reed canarygrass	6-8	Tall fescue*	6-8	
Timothy	3-4	Red top	4	
9. Birdsfoot trefoil	5-6			
Timothy	2-4	10. Smooth bromegrass	15-20	
,		O .		
Droughty soils				
11. Alfalfa	8-10	*Use only endophyt	e	
Smooth bromegrass	6-8	fungi free or novel		
Orchardgrass	4-6	endophyte varieties		
Tall fescue*	6-8	endophyte varieties		
E D-4-4i 1 D	D			
For Rotation and Perman		res		
Moderately to well-drain 12. Alfalfa		13. Alfalfa	6.0	
	6-8		6-8	
Smooth bromegrass	6-8	Timothy	2-4	
Orchardgrass	4-6	Smooth bromegrass	4-6	
Tall fescue*	6-8	Orchardgrass	3-4	
14. Smooth Bromegrass	15-20			
For 12 and 13, you can substitute 4 pounds/A red clover for ½ the alfalfa seeding rate, or 6-8 pounds/A red clover in place of alfalfa.  Imperfectly drained soils				
15. Red clover	6-8	16. Ladino clover	<sup>1</sup> / <sub>2</sub> -1	
Ladino clover	1/2	Orchardgrass	6-8	
Orchardgrass	4	Smooth bromegrass	8-10	
Tall fescue*	6-8	J		
17. Birdsfoot trefoil	5	18. Birdsfoot trefoil	6	
Smooth bromegrass	6-8	Kentucky bluegrass	4-6	
Timothy	3-4	remember stategrass	, ,	
19. Smooth bromegrass	15-20	20. Tall fescue*	10-15	
21. Smooth bromegrass	10	22. Switchgrass	5-7 PLS	
Orchardgrass	4	23. Big bluestem	10-12 PLS	
		29. Dig bluestem	10 12 1 25	
Poorly drained soils	_	27 (1.1)		
24. Birdsfoot trefoil	5	25. Alsike clover	2-4	
Smooth bromegrass	6	Ladino clover	1/2	
Timothy	3-4	Reed canarygrass	8	
26 P. 1	10	Timothy	3-4	
26. Reed canarygrass	10	Tall fescue*	8	
27. Tall fescue*	10-15	28. Ladino clover	1-2	
29. Switchgrass	5-7 PLS	Kentucky bluegrass	6-8	

Droughty soils	
30. Alfalfa	6-8
Smooth bromegrass	6-8
Orchardgrass	4-6
Tall fescue*	6-8
31. Smooth bromegrass	15-20
32. Tall fescue*	10-15
22 C	0.10
33. Crownvetch	8-10 6-8
Smooth bromegrass	0-8
D . F II	
Pasture For Horses	6.0
34. Alfalfa	6-8
Kentucky bluegrass	2 6-8
Smooth bromegrass	
Orchardgrass	4-5
	1.
35. Ladino clover	1/2
Kentucky bluegrass	3-5
Timothy	2-4
Orchardgrass	6
Smooth bromegrass	6
36. Birdsfoot trefoil	6
Timothy	3-4
Destar Femilians	
Pasture For Hogs	0
37. Alfalfa	8
Ladino clover	2
20 E D	1.6
38. Forage Rape	4-6 1-2 bushels
Oats	1-2 busiless
Supplemental Pasture	
39. Sudangrass	25-30
Jos. Sadangrass	25 50
40. Oats	2-3 bushels
41. Hybrid Pearl Millet	30-35
42. Winter rye	1 <sup>1</sup> / <sub>2</sub> bushels
43. Foxtail/German Millet	20-25
44. Forage Rape	4-6
Oats	1-2 bushels
	1-2 00311013
Grassed Waterways	
45. Reed canarygrass	8-12
15. Recu carrary grass	0-12
46. Tall fescue*	10-15
47. Smooth bromegrass	15-20