

## 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.

## Converting to Pasture or HayForage Seeding Mixtures

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 University Extension publications Interseeding and No Till Pasture Renovation, Pm 1097, and Improving Pasture by Frost Seeding, Pm 856.

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
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 | $2-4$ |

Reviewed and originally prepared by Stephen K. Barnhart, ISU Extension forage agronomist, and Laura Sternweis, ISU Extension communication specialist.
*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 |
| Droughty soils |  |  |  |
| 11. Alfalfa | 8-10 | *Use only endophyt fungi free or novel endophyte varieties |  |
| Smooth bromegrass | 6-8 |  |  |
| Orchardgrass | 4-6 |  |  |
| Tall fescue* |  |  |  |
| For Rotation and Permanent Pastures |  |  |  |
| Moderately to well-drained soils |  |  |  |
| 12. Alfalfa | 6-8 | 13. Alfalfa | 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 $1 / 2$ 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 | $1 / 2-1$ |
| Ladino clover | $1 / 2$ | Orchardgrass | 6-8 |
| Orchardgrass | 4 | Smooth bromegrass | 8-10 |
| Tall fescue* | 6-8 |  |  |
| 17. Birdsfoot trefoil | 5 | 18. Birdsfoot trefoil | 6 |
| Smooth bromegrass | 6-8 | Kentucky bluegrass | 4-6 |
| Timothy | 3-4 |  |  |
| 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 |
| Poorly drained soils |  |  |  |
| 24. Birdsfoot trefoil | 5 | 25. Alsike clover | 2-4 |
| Smooth bromegrass | 6 | Ladino clover | $1 / 2$ |
| Timothy | 3-4 | Reed canarygrass | 8 |
|  |  | Timothy | 3-4 |
| 26. Reed canarygrass | 10 | Tall fescue* | 8 |
| 27. Tall fescue* | 10-15 | 28. Ladino clover | 1-2 |
|  |  | Kentucky bluegrass | 6-8 |
| 29. Switchgrass | 5-7 PLS |  |  |


| 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 |
| 33. Crownvetch | 8-10 |
| Smooth bromegrass | 6-8 |
| Pasture For Horses |  |
| 34. Alfalfa | 6-8 |
| Kentucky bluegrass | 2 |
| Smooth bromegrass | 6-8 |
| Orchardgrass | 4-5 |
| 35. Ladino clover | $1 / 2$ |
| Kentucky bluegrass | 3-5 |
| Timothy | 2-4 |
| Orchardgrass | 6 |
| Smooth bromegrass | 6 |
| 36. Birdsfoot trefoil | 6 |
| Timothy | 3-4 |
| Pasture For Hogs |  |
| 37. Alfalfa | 8 |
| Ladino clover | 2 |
| 38. Forage Rape | 4-6 |
| Oats | 1-2 bushels |
| Supplemental Pasture |  |
| 39. Sudangrass | 25-30 |
| 40. Oats | 2-3 bushels |
| 41. Hybrid Pearl Millet | 30-35 |
| 42. Winter rye | $11 / 2$ bushels |
| 43. Foxtail/German Millet | 20-25 |
| 44. Forage Rape | 4-6 |
| Oats | 1-2 bushels |
| Grassed Waterways |  |
| 45. Reed canarygrass | 8-12 |
| 46. Tall fescue* | 10-15 |
| 47. Smooth bromegrass | 15-20 |

