Ministry of Agriculture and Fisheries
Hon. John Savage, Minister

Factsheet

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SELECTING A PASTURE MIX FOR THE PEACE

Pasture is often taken for granted, with little consideration given to forage variety, proportion in the mix or quality of seed. Partial or complete failure to obtain a stand is a common, almost accepted, hazard of seeding pasture. The following guidelines may be useful when considering a pasture mixture.

Mixtures

The trend in recent years has been toward "simple" mixtures of 2 - 3 species, since the most competitive forages prevail after a couple of years. If you know the forages best suited to your particular soil and have a uniform area then a simple mix will likely be the most productive. However, if seeding "new" pasture or areas of varying terrain, a 4 - 5 species mix may be required to ensure complete ground cover or to determine the most productive forages to seed for the next renovation cycle. In some instances a single forage cultivar, because of unique characteristics or incompatibility with other forages, may be the most productive on a given soil, for a particular need.

Tried and Proven

The traditional forage "oldies" including smooth bromegrass, timothy, creeping red fescue as well as alsike clover and/or alfalfa do well mainly because of superior establishment ability, especially when broadcast. The standard forestry mix - 20 percent alsike, 20 percent fescue, 30 percent bromegrass and 30 percent timothy - has proven quite productive in areas where adequately fertilized and grazed to allow sufficient regrowth. Poor management however, often leads to:

- poor utilization (overmature timothy)
- a short stand life (sod-bound fescue)
- bloat (too much alsike)

Potential Grasses

Other grasses with potential for the Peace include crested wheatgrass, meadow foxtail, orchardgrass, and meadow bromegrass. Crested wheatgrass is now included in most recommended pasture mixes especially on the drier sites, in case of drought in the establishment year or to provide growth during the "late" years. It can also be grown alone or with alfalfa to provide early pasture.

Meadow foxtail is our earliest forage and establishes easily, especially on the poorer soils and wet sites, providing ideal mid-May and June pasture when grown alone or with alsike clover. It can produce reasonably well over the summer if kept vegetative, but may lack palatability as it matures.

Orchardgrass has lots of potential because of superior palatability and season long growth. Although subject to winterkill in this area "Kay" orchardgrass has survived six winters in several locations. Meadow bromegrass may be well suited to rotational grazing in the Peace because of its superior regrowth with good moisture conditions.

Courtenay tall fescue is also promising because of its establishment vigour, drought resistance and fall growth for pasture. Courtenay is the most winterhardy variety.

Legumes

Legumes should be considered in the pasture blend for their superior nutritive value rather than their nitrogen fixation, which is usually negligible under pasture conditions in most cases. Alfalfa, although nutritionally superior, is difficult to maintain in the stand under continuous grazing. Only the most persistent varieties should be sown on areas where it as adapted (well drained, pH≥5.9). Grazing alfalfa after flowering and avoiding drought or frost situation will reduce the risk of bloat. Rotational grazing should be considered.

Alsike clover, often considered a weed, is probably our most important pasture legume because of suitability to acidic soils, its N-fixation despite grazing and its low growth habit. Red clover might also be considered for short term pasture, especially on the extremely acidic areas. Birdsfoot trefoil, a non-bloating legume, has produced extremely well with both meadow foxtail and timothy, especially on the less fertile soils. However, care must be taken to ensure its establishment. Birdsfoot trefoil cannot tolerate much competition so non-creeping grasses are its best companions.

Seed Size and Rates

Generally, very little attention is made to seed size and how it relates to seeding rates and proportions in mixes. When determining forage seeding rates consider seeding density (number of seeds per square metre or number of seeds per square foot). Seeding densities of approximately 50 seeds per square foot (533 per square metre) are common for many forage stands. However, since this density will result in seeding rates from 3 -30 kilograms per hectare, some discretion must be used in determining rates. On the other hand, seeding at 10 kilograms per hectare for all forages can result in drastic variation in seeding density.

Use good quality, clean seed of adapted varieties. Canada Certified No. 1 seed is highly recommended as assurance of both varietal adaptation and quality. Any old or otherwise suspect forage seed should be given a germination test to determine viability.

Common Number 1 seed, grown locally, might be adapted but can contain additional weed seed and seeds of other crops. Details of the seed analysis from each seed lot are available upon request from the supplier. **Do not skimp on seed quality!**

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