



Forage Grass Notes

Timothy (*Phleum pretense*)



Introduction

- Widely grown in the cool moist regions of the world
- Major forage grass in Ontario, Quebec and Maritimes (volume of forage seed is nearly twice that of any other grass)
- One of the most winter hardy, cool season forage grasses (able to withstand low temperatures and ice encasement)

Growth and Morphology

- Sown with legumes, it is good insurance against crop failure
- Perennial bunchgrass not aggressive like orchardgrass - does well on soils with variable drainage (poorly to moderately well drained)
- Most productive at first cut under cool temperatures (15°- 21°C optimum temperature for growth) and ample moisture
- New shoots develop from the nodes - perpetuates the plant
- Root system is fibrous but very shallow, 80% of roots in the top 5 cm of soil
- Under drought, re-growth is very slow and poor because new tillers must develop their own new root system
- Obligatory long day plant (no cold period required for flowering, critical day length for flowering varies with cultivar - strains developed farther north have longer photo period requirements)
- Development is also related to growing degree days (GDD 55°C) - need 350 - 450 GDD to reach early heading in Atlantic Canada

Culture and Management

- Easy to establish, can be sown in the spring or fall
- Must be seeded shallow into a fine firm seed bed. Seeding rates are 2 to 10 kg

- Common mixtures containing timothy would be 10 kg/ha alfalfa + 2 kg/ha timothy or 4 kg/ha red clover + 8kg/ha timothy
- Used for hay, silage (water soluble carbohydrate content has been found to be low for good silage fermentation) and pasture (traditionally the aftermath crop following a first of hay is grazed, some cultivars persist and yield better under grazing than others)
- Good to excellent quality feed when cut at the late boot to early emergence
- Harvesting at early emergence to mid heading results in good persistence - food reserves are adequate for new shoot development
- Frequent cutting during stem elongation can result in stand deterioration. Timothy is sensitive to frequent defoliation and will not persist under continuous grazing
- Grow cultivars of differing maturity (maximum range in heading date between recommended cultivars is 15 days)
- Early maturing timothy cultivars tend to persist better with alfalfa than later maturing cultivars

For more information, please contact:

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