

# Growth and quality of multispecies pastures harvested at a fixed sward height

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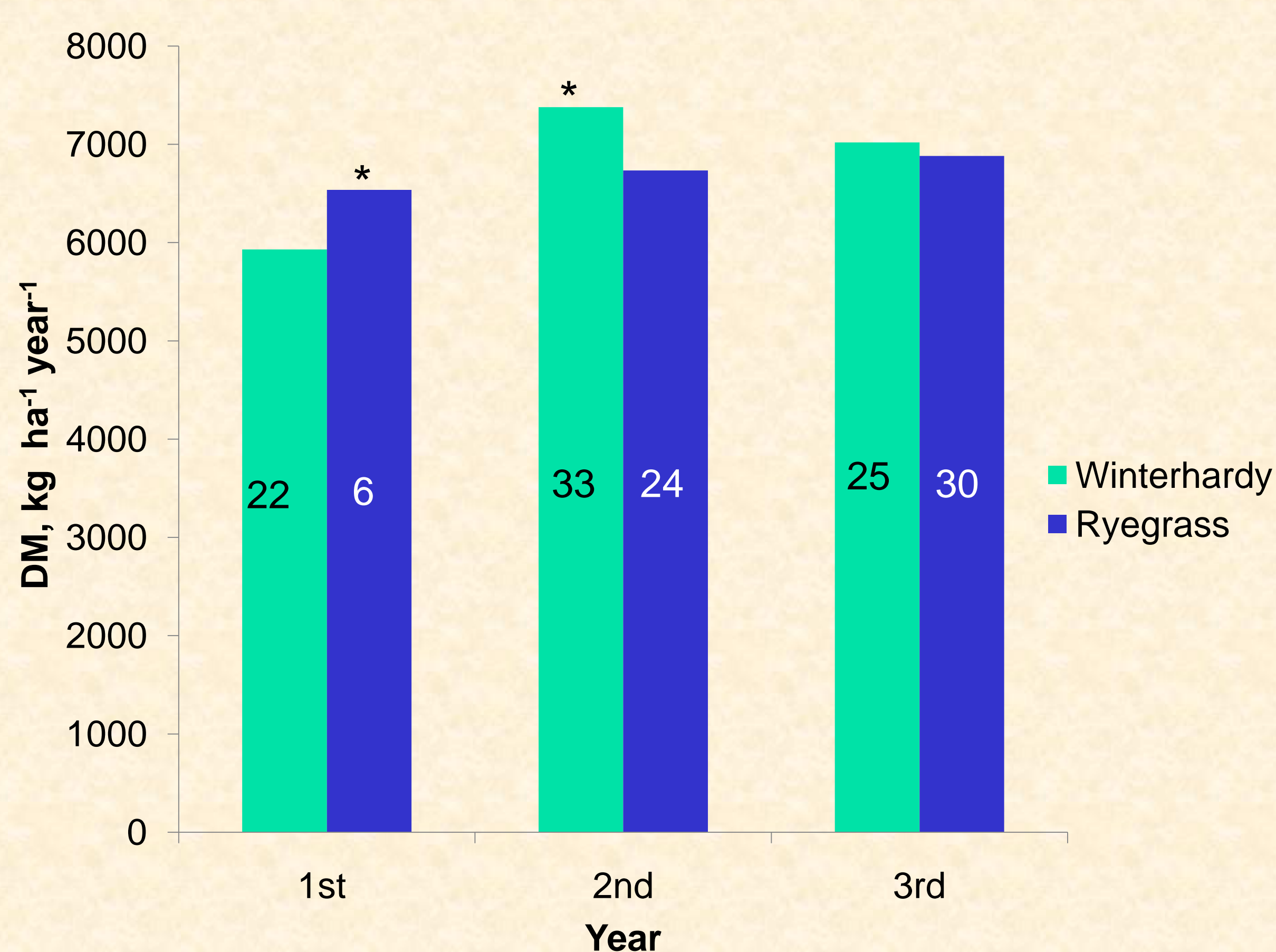
## Introduction

What seed mixtures are to be recommended for grazing in the lowlands of central Norway; ryegrass or the well adapted mixtures of timothy/meadow fescue/smooth meadow grass ('Winterhardy')? Is it possible to maintain a high quality of the herbage throughout the grazing season by frequent grazing? These questions were investigated under simulated rotational grazing.

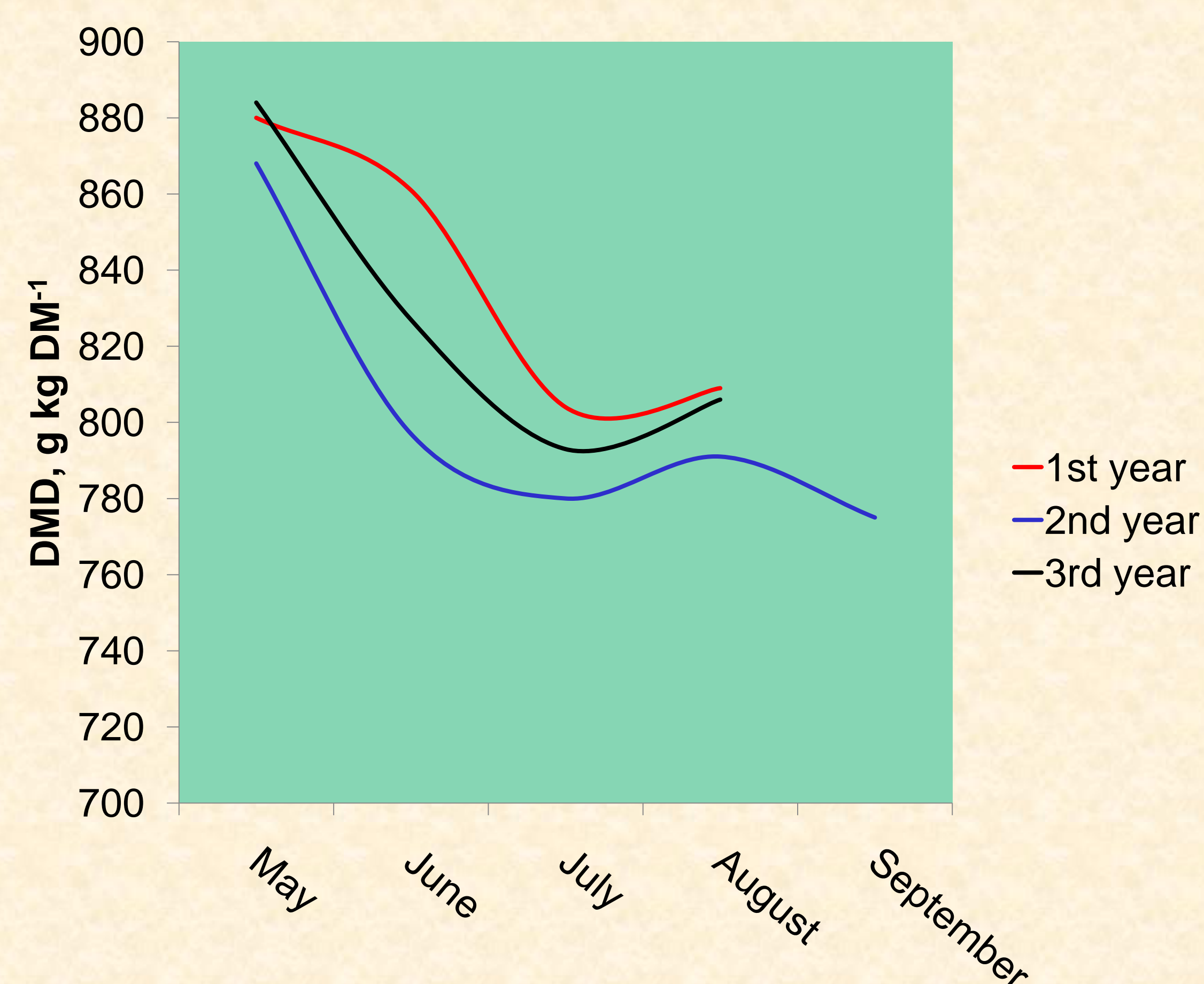
## Methods

The swards were established from commercial seed mixtures including white clover additionally to perennial grasses. During three consecutive years after establishment, the swards were repeatedly cut (7-9 times per year) from early May to early September at a pre-harvesting sward height of 15 cm and a stubble height of 7 cm.

## Results



Annual DM yield and the mean proportion (%) of white clover in the herbage .



Seasonal changes in digestibility of herbage DM. Averages for both mixtures.

Composition of the herbages as analysed by NIRS. Mean values for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year ley.

	g kg DM <sup>-1</sup>				
	CP	WSC	NDF	UNDF	DMD
Winterhardy	205	141	408	41	807
Ryegrass	197 (*)	182*	385*	34*	835*

\* : p<0.05

## Summary and conclusions

Ryegrass yielded as much as a winterhardy, timothy/meadow fescue/smooth meadow grass dominated mixture during a three year rotation of leys, despite challenging overwintering conditions.

The nutritive quality of the ryegrass-dominated sward was higher compared to that of the timothy/meadow fescue/smooth meadow grass sward.

Seasonal differences/changes were more pronounced than the differences between swards. The nutritive quality of the herbage decreased from spring to early autumn despite the fact that the swards were well managed by frequent cutting and fertilizing.

In the lowlands of Central Norway, a perennial ryegrass/white clover seed mixture can be recommended for intensive managed pastures as an alternative to a seed mixture with timothy, meadow fescue and smooth meadow grass.