

Materials to prevent trampling damage on pasture areas subjected to high dairy cow traffic

Eva Salomon JTI – Swedish Institute of Agricultural and Environmental Engineering
Eva Spörndly SLU, Department of Animal Nutrition and Management



Conclusions

The armoured mats were hardly affected during two grazing seasons and a winter in between. The costs of armoured mats can be as low as bark chip beds if they can be used for seven years.

The bark chip beds did not withstand trampling while the measure of taking no action was sufficient for the prevailing growing conditions with a rotational grazing system.

Introduction

Trampled and muddy surfaces at paddock entrances can create problems with cow traffic and milk quality. The question was which benefits two ground stabilizing materials had compared to taking no action.

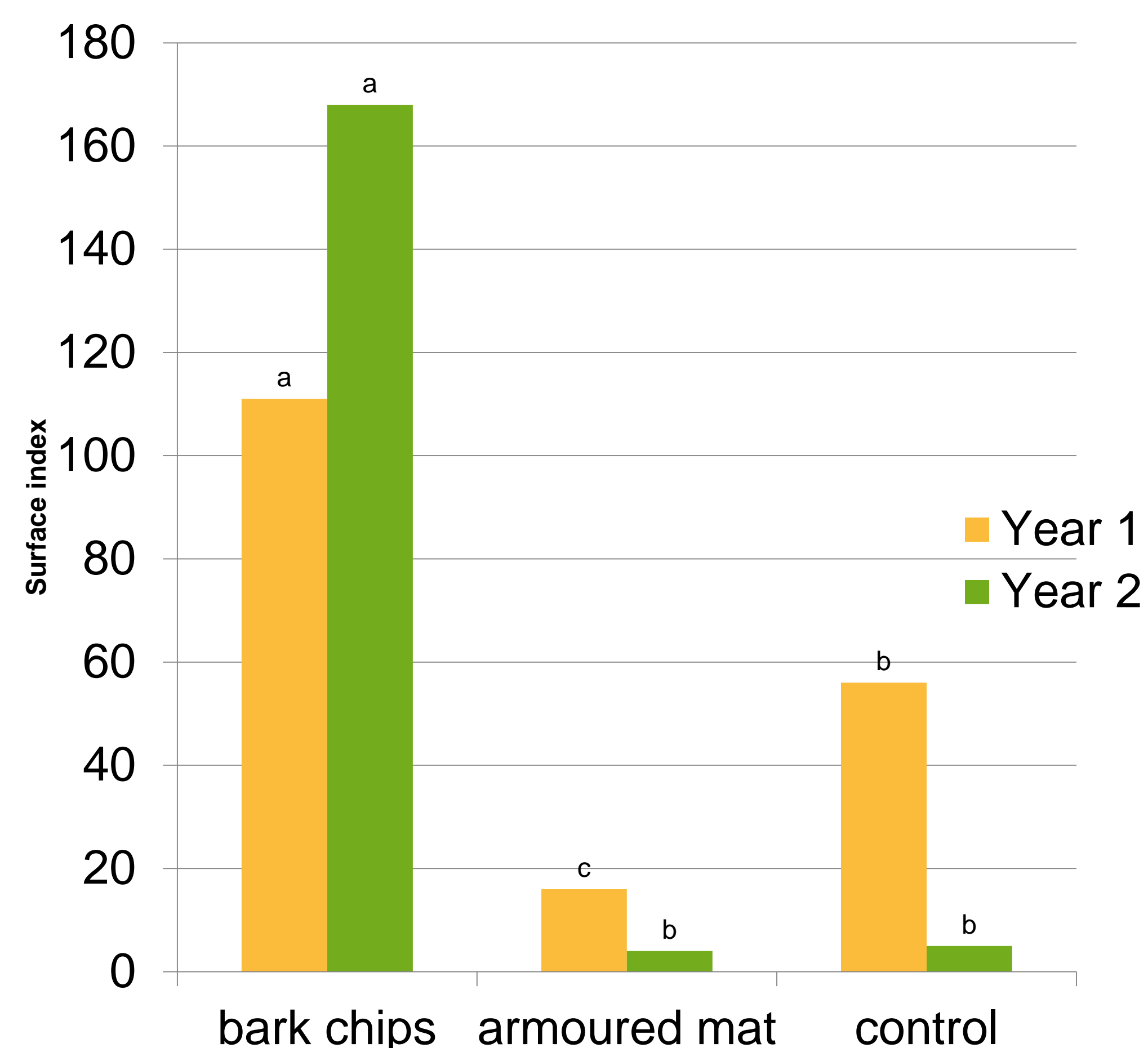


Figure 1. Average surface index with different letters within each year are significant different ($p < 0.001$).

Material and methods

The treatments were placed at paddock entrances in a randomized complete block design. Assessment of trampling was performed regularly and used to calculate a surface index with which to score degree of damage. The number of cow passes were documented continuously.

Paddock entrances 2nd spring and autumn



Results

The two grazing seasons had dry to normal conditions.

There was no effect of the number of cow passes (2000 – 7000 cow⁻¹) on the surface index for any treatment.

Both years the bark chip bed had more trampling damage and a significantly higher surface index than the armoured mats and the control, Figure 1.

Future test - limestone gravel

