Merino Sheep

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WELFARE
Quality of Life

Merino sheep research
How do sheep choose to use their paddock?


An alternative means of moving flocks
Limited and varying success in encouraging and attracting sheep to use shelter

Materials and Methods

Design

44 Ewes

11 ewes per group

Visual

Auditory

Vis + Aud

Controls

No training
Training Area

Hessian

Gates

Light/Sound & Feed

Stimulus

Reward
Training Area

- Hessian
- Gates
- Light/Sound & Feed

T-Maze

- 31+ days separating the 4 Test
- Measurements:
  - Time to approach stimulus max. 60 sec.
  - Number of correct choices

- 2.23m
- 10 m
- 900mm
Results

![Graph 1: Proportion of Correct Decisions]

![Graph 2: Bar Chart]

Results
Sheep can be trained to approach a visual and auditory stimulus!

Taylor et al. (2010) 'Training Merino sheep to respond to visual and auditory cues.' Animal Production Science, 50: 541-545.

Sub-grouping (3+ animals)
Two groups
Small Mob (SM) and Large Mob (LM)

SM, n=18
3 trained ewes + 15 naive ewes & wethers

LM, n=48
3 trained ewes + 45 naive ewes & wethers

Three open paddocks

Stimulus
Trees
Water points
not to scale
Three complex paddocks with hessian barriers

Hessian barriers
Stimulus
Water points
Trees
not to scale

Leader initiated movement

<table>
<thead>
<tr>
<th></th>
<th>Morning</th>
<th>Afternoon</th>
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</thead>
<tbody>
<tr>
<td>GM-CP</td>
<td>109</td>
<td>83</td>
</tr>
<tr>
<td>LH-CP Group-Paddock</td>
<td>47</td>
<td>80</td>
</tr>
<tr>
<td>GM-CP</td>
<td>105</td>
<td>83</td>
</tr>
</tbody>
</table>
Gregarious nature of Merino sheep

Allelomimetic behaviour

Sub-grouping (3+ animals)
Sub-grouping

\((\chi^2(df3)=0.26, P=0.97)\)

Social Interaction

Taylor et al. (2011) ‘Effects of Merino flock size, paddock complexity and time of day on response to trained leaders.’ Small Ruminant Research, 97: 35-40.