



# Lameness in Irish Pasture-Based Dairy Cows

Natasha Browne<sup>1,2</sup>, C. Hudson<sup>2</sup>, R. Crossley<sup>1,3</sup>, K. Sugrue<sup>1</sup>, M. Conneely<sup>1</sup>

<sup>1</sup>Teagasc, Moorepark, Fermoy, Co. Cork, IE. <sup>2</sup>School of Veterinary Science & Medicine, University of Nottingham, UK.

<sup>3</sup>Animal Production Systems Group, Wageningen University & Research, NL.

natasha.browne@teagasc.ie

## Introduction

Lameness is a huge challenge in the dairy industry worldwide. The condition negatively impacts cattle welfare and results in economic losses due to increased cull rates and treatment costs, in addition to reduced milk yield and fertility rates. However, there is currently a lack of data on the prevalence of lameness, the predominant lesion types and the risk factors for lameness in Irish pasture-based dairy systems.

## Aims

- Investigate the prevalence of lameness
- Determine the most common hoof lesion types
- Identify the current methods used to prevent lameness and to treat lame cows

## Materials and Methods

- 100 commercial dairy farms were visited across 7 counties with the highest number of dairy cows (Fig 1.)
- Visit dates: once during grazing period (Apr 2019 – Sept 2019) & once during housing period (Oct 2019 – Feb 2020)
- A questionnaire, farm infrastructure measurements, mobility scoring (Agriculture and Horticulture Development Board scale, 2015) & hoof examinations were carried out at each visit

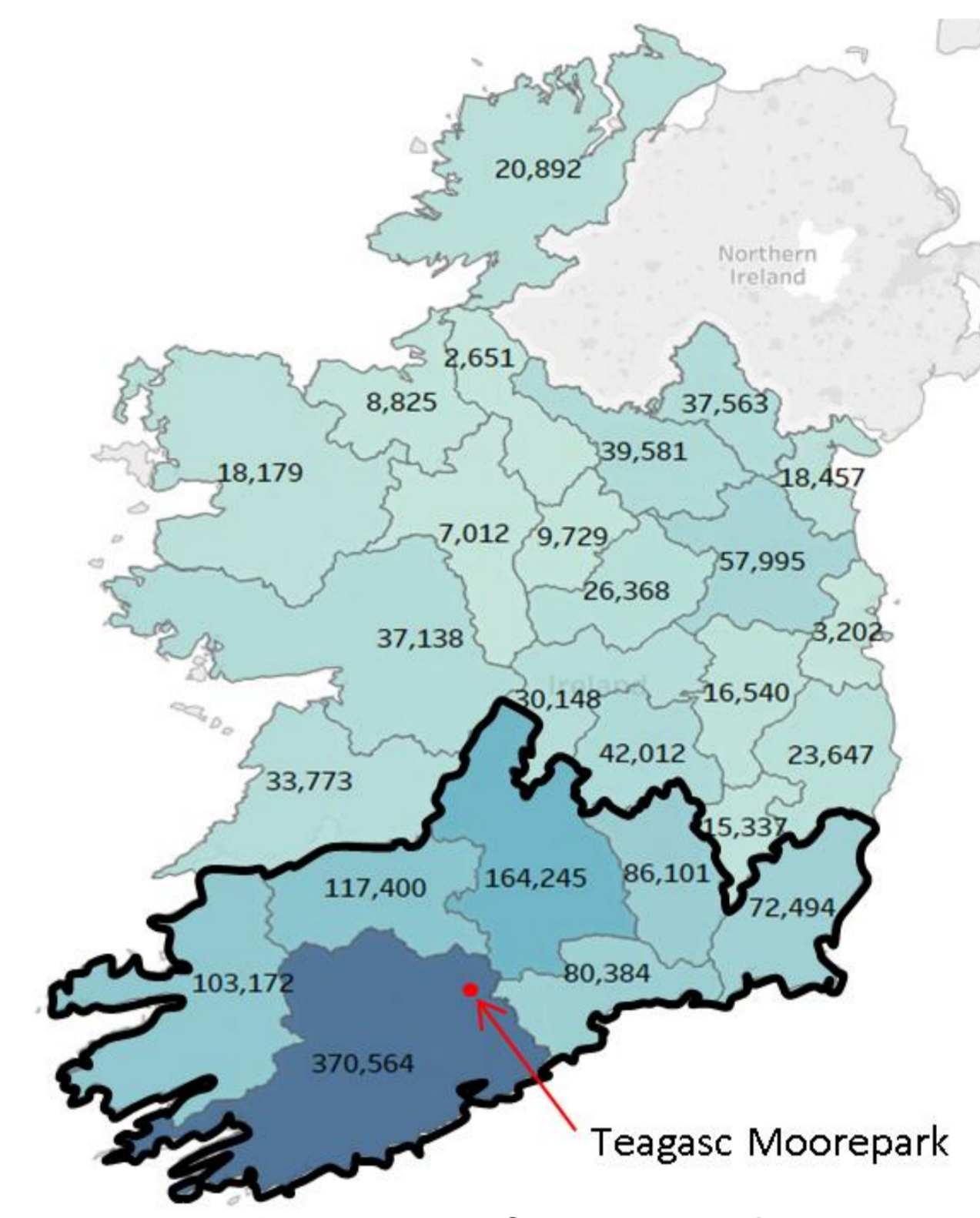


Figure. 1: Farm locations (adapted from ICBF, 2017)

## Results (Grazing Period)

### Hoof lesions

- Most common hoof lesions: sole haemorrhages (34% of lesions) and white line lesions (26% of lesions, Fig. 2)
- 36% of farms had at least one case of digital dermatitis

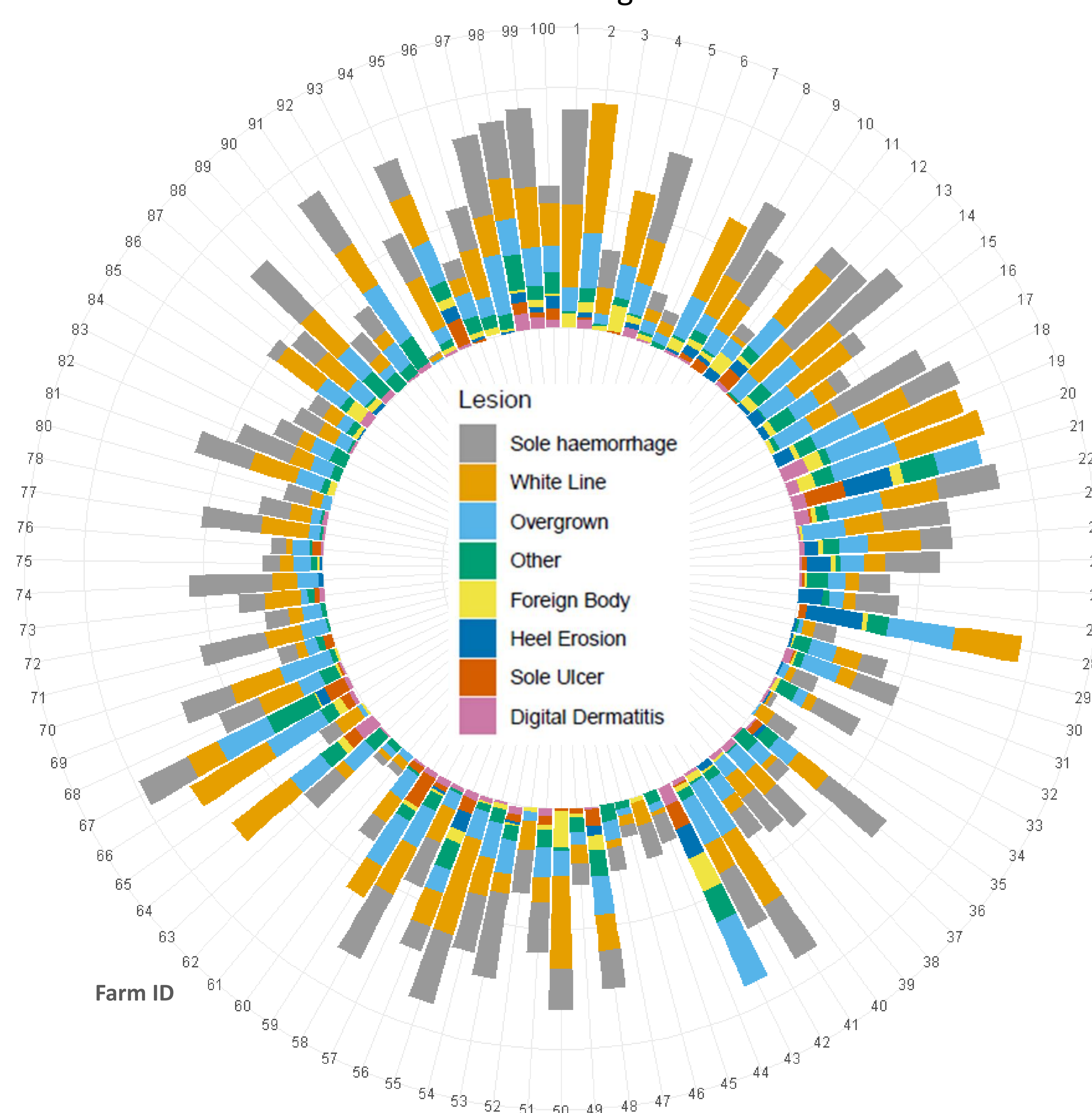


Figure. 2: Total number of lesions in lame cows on 100 pasture-based dairy farms in Ireland during grazing. Max. 20 lame cows lifted per farm

### Lameness prevalence

- Average lameness prevalence was 10 % (mobility score 2 & 3; range 1% - 31%)

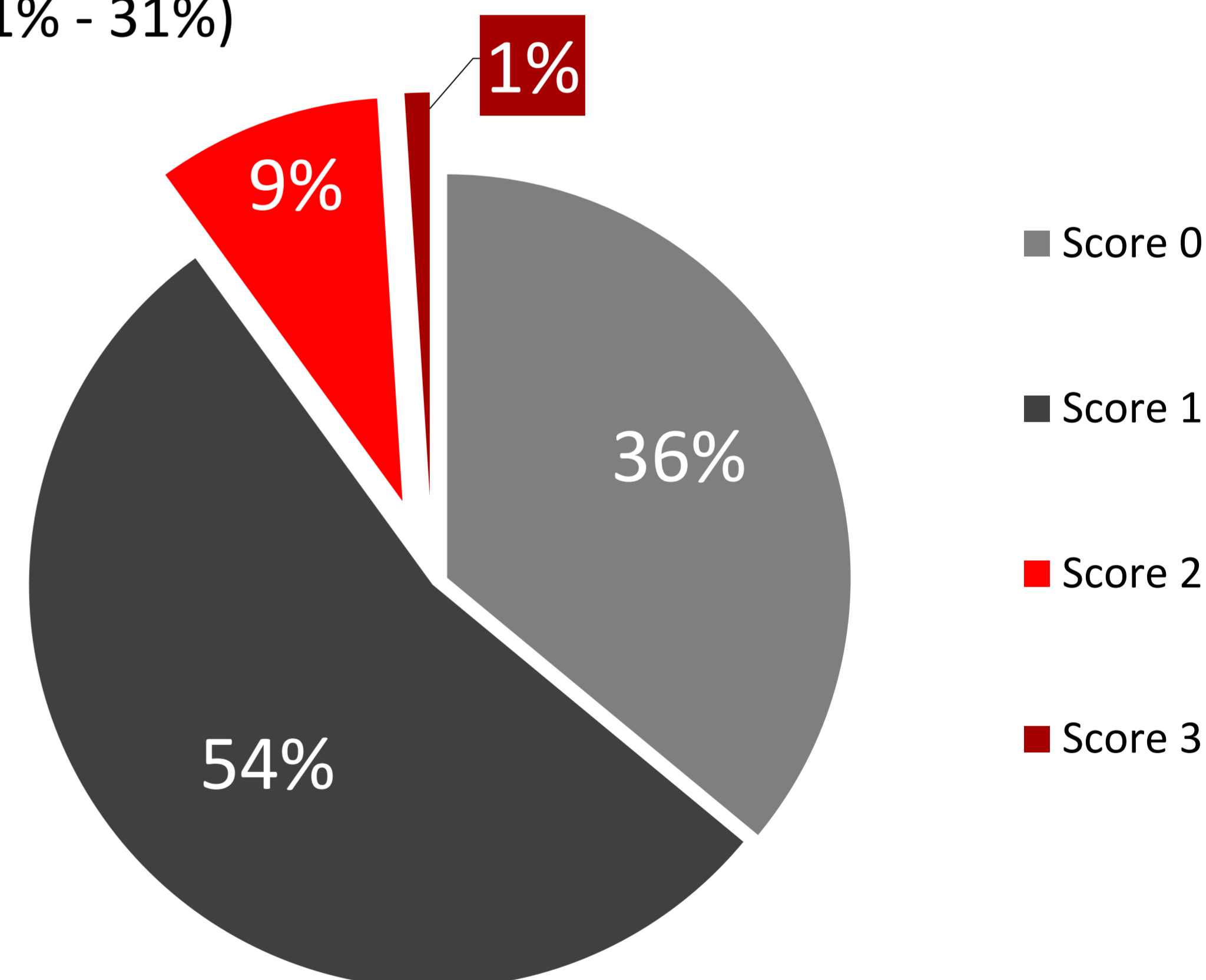


Figure. 3: Prevalence of each mobility score on 100 pasture-based dairy farms in Ireland during grazing

### Footbathing

- 50% farms footbath a minimum of twice/ yr
- 9% farms used antibiotic footbaths at least once/ yr
- Common footbathing solutions included copper sulphate (24 farms), formalin (17 farms) and organic acid & tea-tree oil solution (10 farms)

### Routine hoof trimming

- 5% farms routinely hoof trimmed the entire herd

### Mobility scoring

- 1% farms routinely mobility scored the entire herd



## Conclusions

- Relatively low levels of lameness, despite limited routine hoof trimming and mobility scoring occurring on Irish dairy farms
- Sole haemorrhages and white line lesions were common, with digital dermatitis cases present on over one third of farms
- Half of farms routinely footbath, with antibiotic footbaths being used by less than 10% of farms