

SustAinimal Grazing Living Lab – a quantitative analysis of grazing management among dairy farms in Northern Sweden

Anna-Karin Karlsson, RISE Research Institutes of Sweden

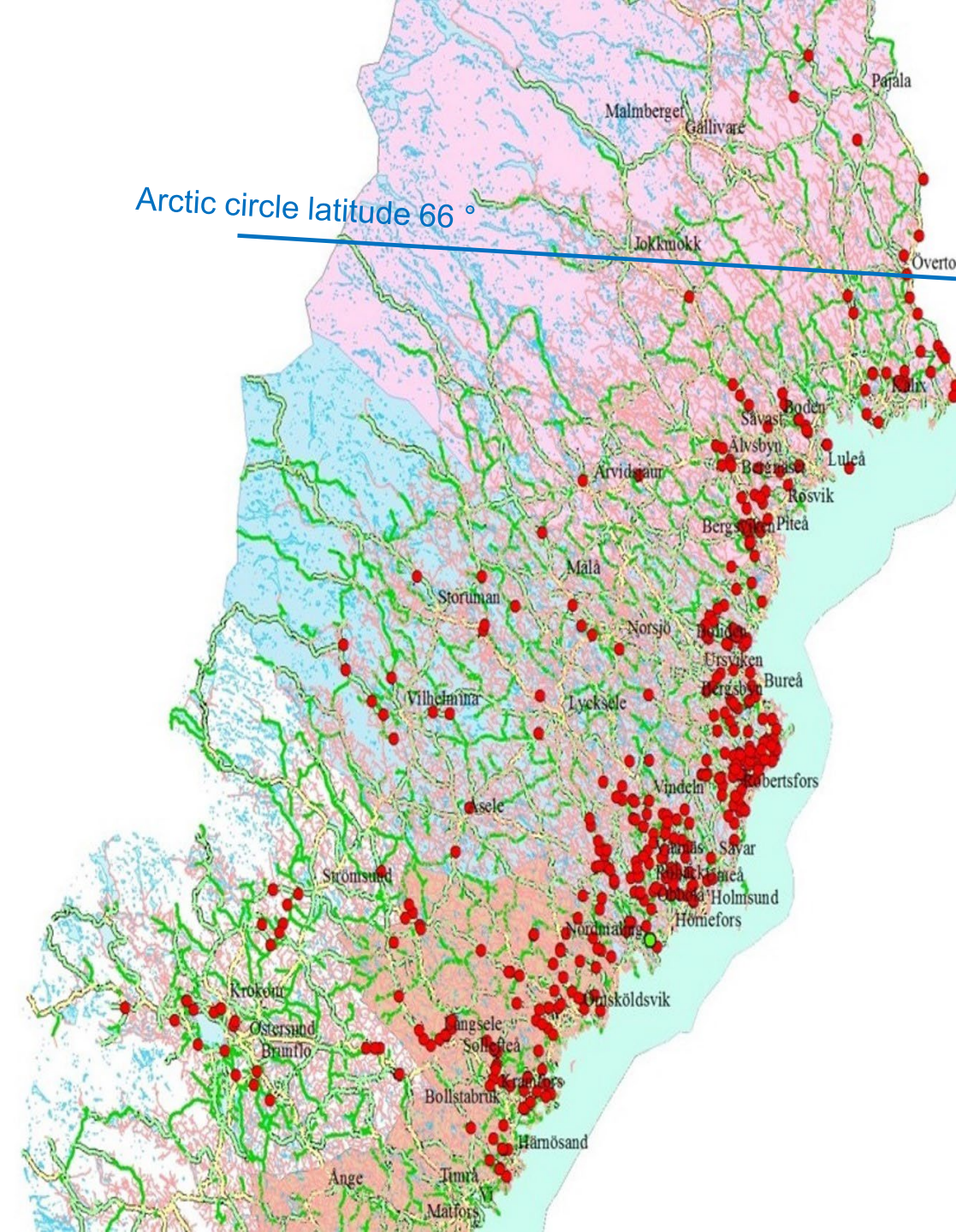
Nilla Nilsson-Linde, SLU – Swedish University of Agricultural Sciences



Dairy farms in the survey

- Northern Sweden – latitude 62°– 67°
- 308* farms (53 with organic production)
- Approx. 21 000 milking cows
- 71 cows/farm on average (8–350 cows)
- 58% of the farms have loose housing system
- 201 millions of kg raw milk in total (15,5% organic milk)

*All dairy farms in the region

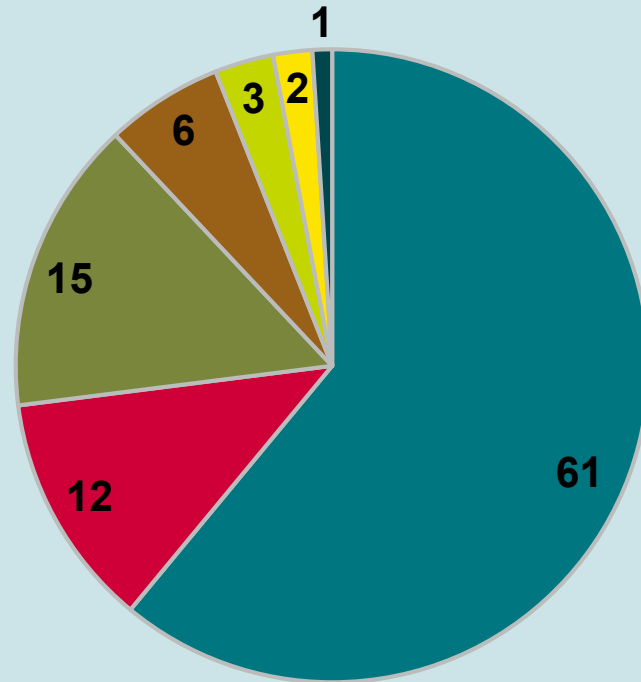


Questionnaire

- One page questionnaire
- Answers between December 2021 and February 2022
- 98% response rate



Use of agricultural land at dairy farms in northern Sweden, %



- Temporary grasslands, ley 1 – 4 years
- Temporary grasslands, ley >4 years
- Cereals, mainly barley and oat
- Other, e.g. fodder rape
- Fallow
- Semi-natural grasslands
- Forest grazing

Questionnaire, Dec 2020–Feb 2021



Swedish grazing policy framework*

Northern Sweden, May 1–October 1

- **60 days**, of which 30 days between June 1 and August 31

Central Sweden, April 1–October 31

- **90 days**, of which 60 days between May 1 and September 15

Southern Sweden, April 1–October 31

- **120 days**, of which 60 days between May 1 and September 15

*Cattle used for conventional milk production



Distance and grazing time

Average distance from barn to paddock

- Dairy cows 0.5 km (0–1.5)
- Heifers and drying-off cows 3.5 km (0–25)

Average amount of grazing hours per day

- 13.5 hours (7–24 hours)

Number of grazing months per year

- 2–2.5 months – 30%
- 3–3.5 months – 39%
- 4–5 months – 31%



Grazing strategies in temporary grasslands

Continuous grazing

The grazing area is available for all cows the whole grazing season.

Rotational grazing

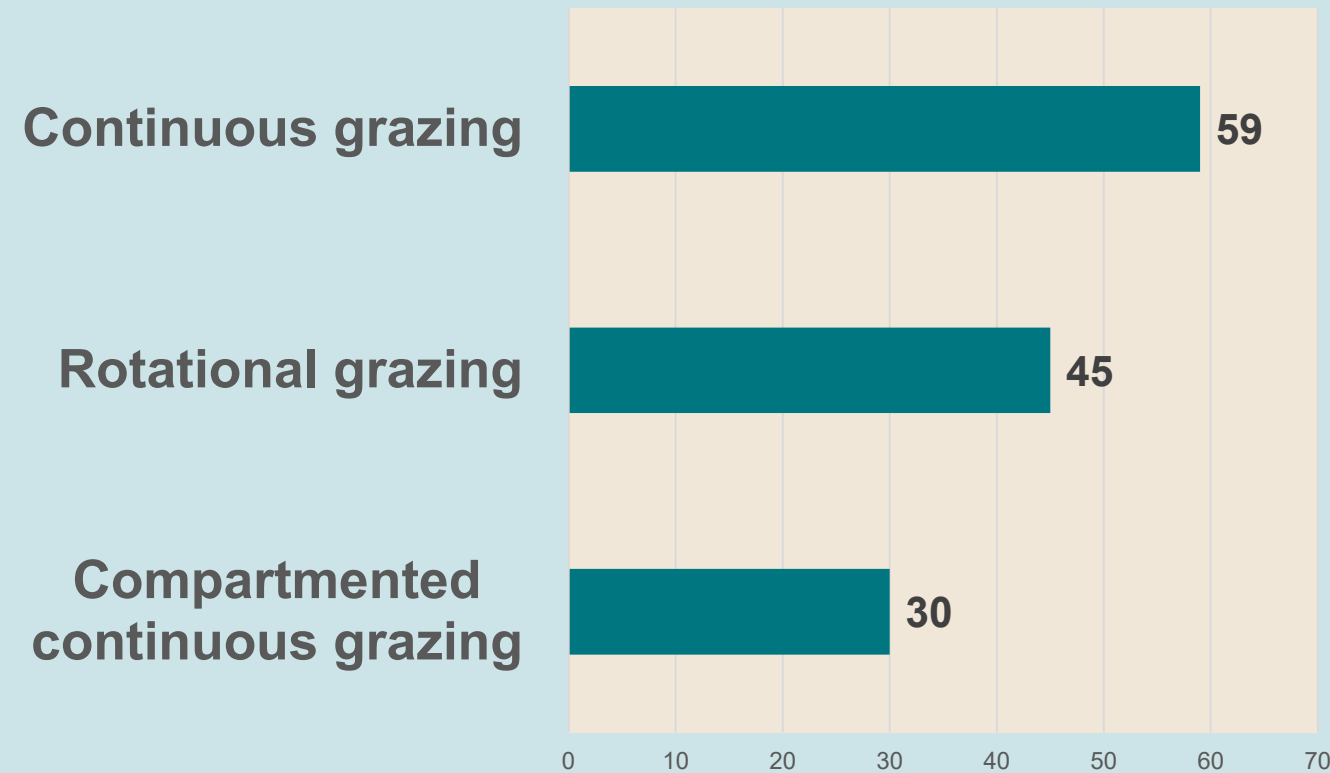
The grazing area is divided into several paddocks.

The cows are grazing one paddock at a time and moved between paddocks.

Compartmented continuous grazing

The total grazing area is large, but the actual grazing area is controlled by moving the fence at certain intervals.

Percentage of dairy farms using different grazing strategies

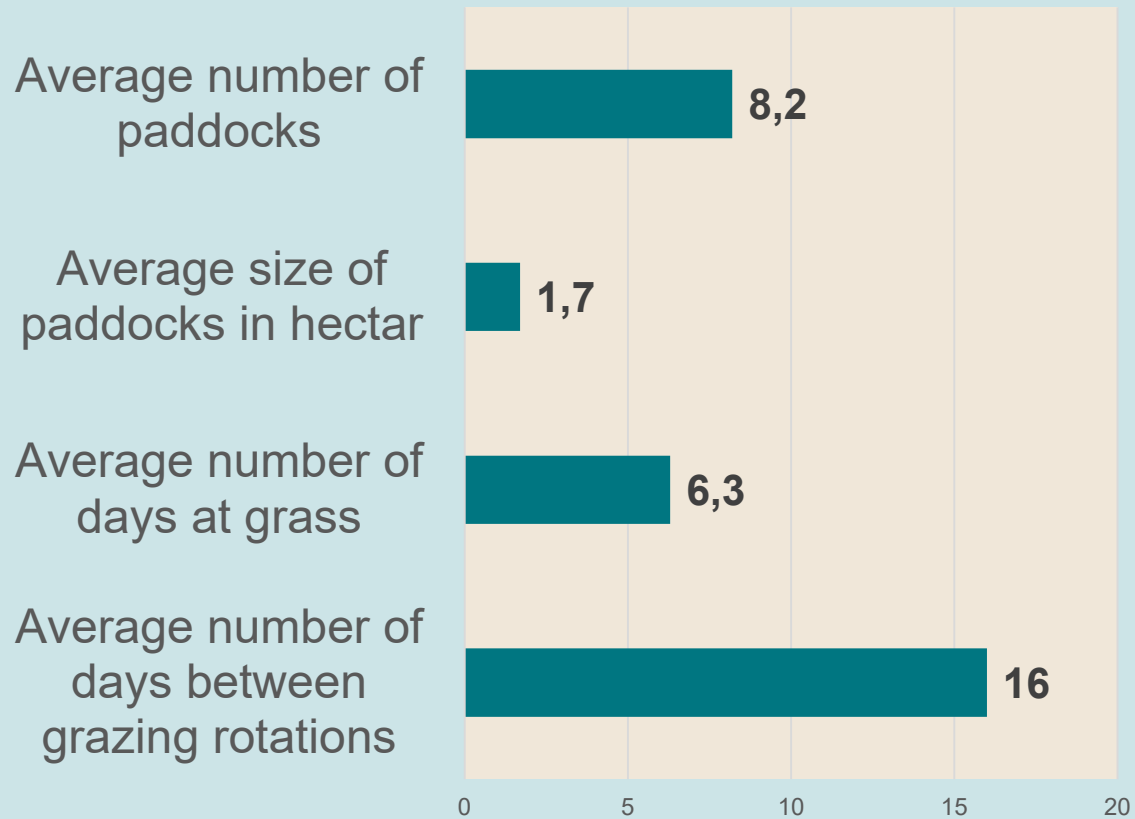


405 answers in total, some dairy farms use a combination of grazing strategies

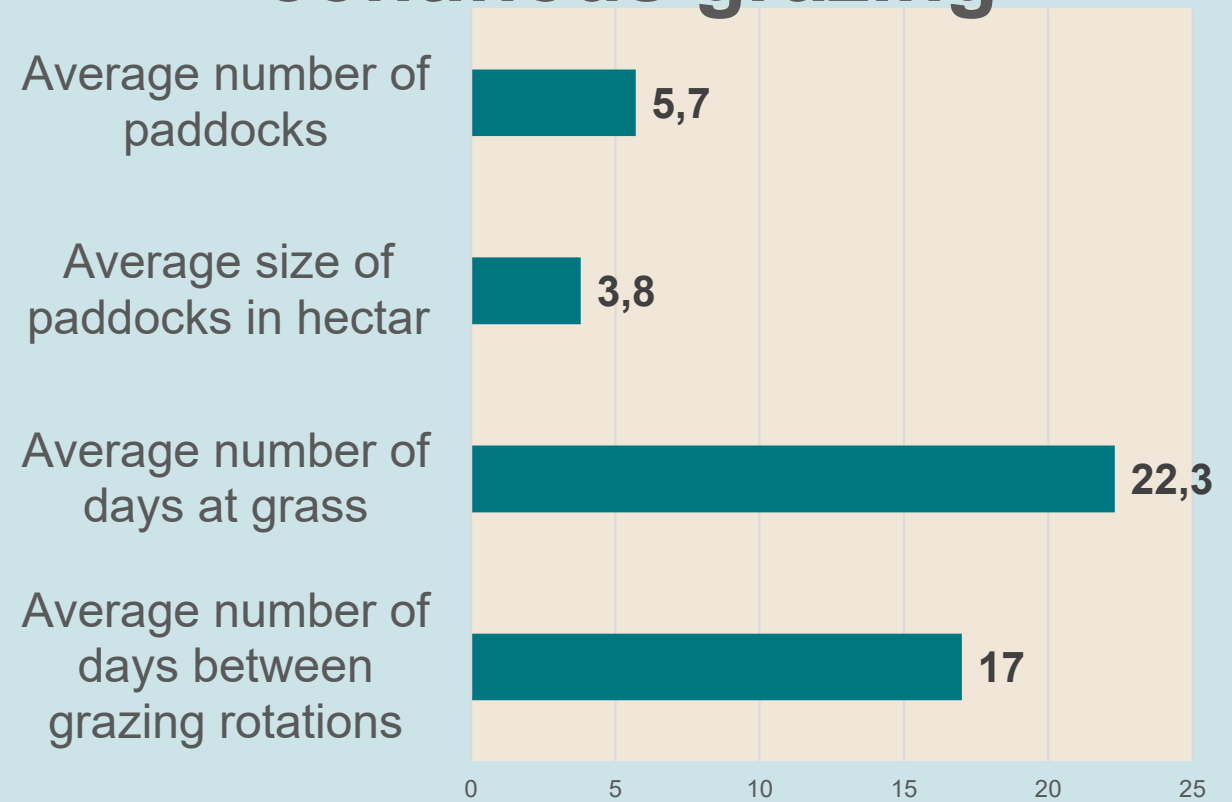


Rotational grazing and compartmented continuous grazing

Rotational grazing



Compartmented continuous grazing



45% of dairy farms mainly use rotational grazing

30% of dairy farms mainly use compartmented continuous grazing

Seed mixtures

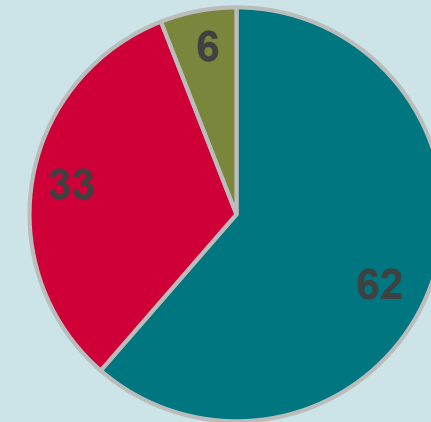
Forage mixtures (62% of the farms)

- Red clover, timothy (34%)
- Red clover, timothy, meadow fescue (32%)
- Red clover, white clover, timothy, (6%)
- Red clover, white clover, timothy, meadow fescue (6%)
- Forage mixtures, but not specified (22%)

Grazing mixtures (33% of the farms)

- White clover, timothy, meadow fescue, smooth-stalked meadow grass (33%)
- White clover, timothy, meadow fescue, perennial ryegrass, smooth-stalked meadow grass, red fescue (15%)
- Grazing mixtures, but not specified (52%)

Seed mixtures, %



- Forage mixtures
- Grazing mixtures
- Customer made mixtures

Red clover (*Trifolium pratense* L.)
White clover (*Trifolium repens* L.)
Timothy (*Phleum pratense* L.)
Meadow fescue (*Festuca pratensis* Huds.)
Smooth-stalked meadow grass (*Poa pratensis* L.)
Red fescue (*Festuca rubra* L.)

Open answers from **77%** of the dairy farms

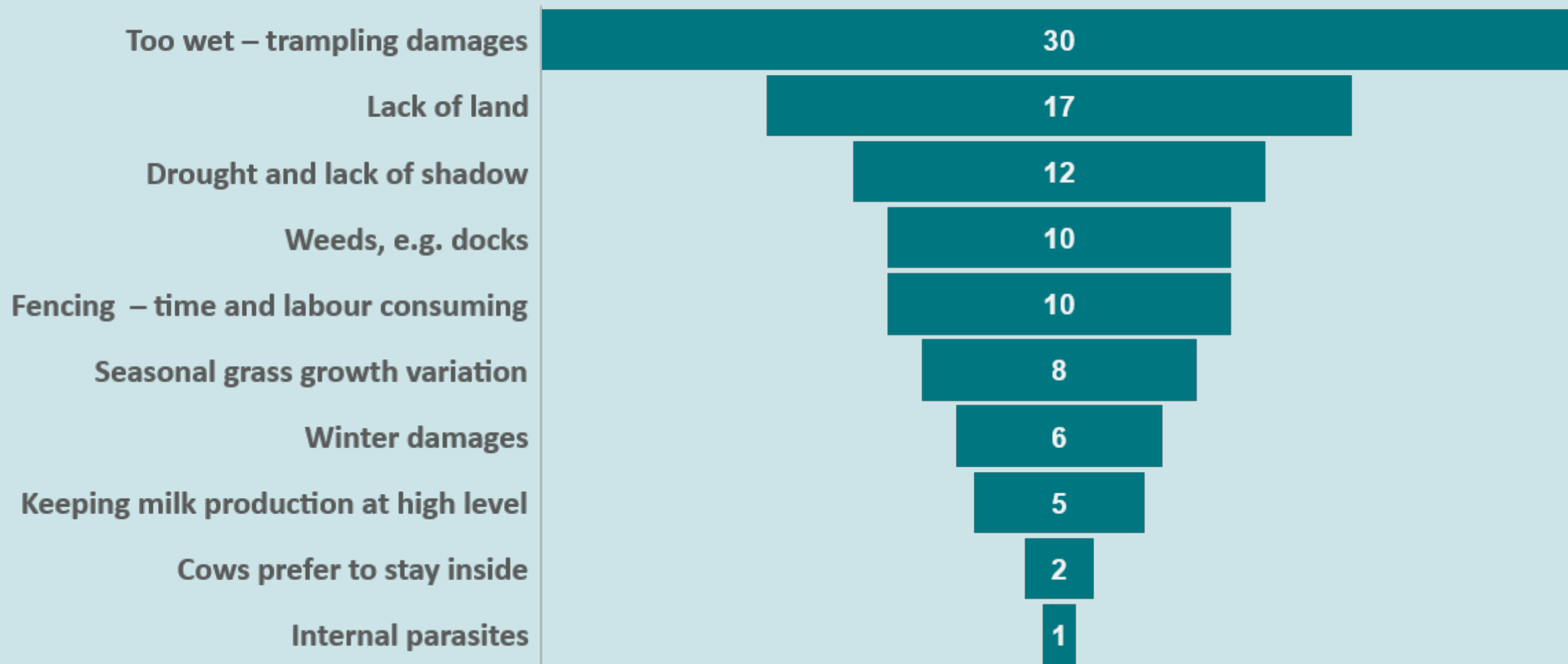


Temporary grasslands for grazing

- Average age of temporary grasslands before ploughing: 4.6 years (variation 2–11 years)
- Share of farms that apply re-sowing: 24.2%
- Share of farms that apply mowing: 82.4%
- Average number of mowings per season: 1.8



Temporary grasslands for grazing – challenges, %



Open answers from **75%** of the dairy farms



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