Farmer logics

- motivations and driving forces influencing a sustainable and resilient Swedish dairy production

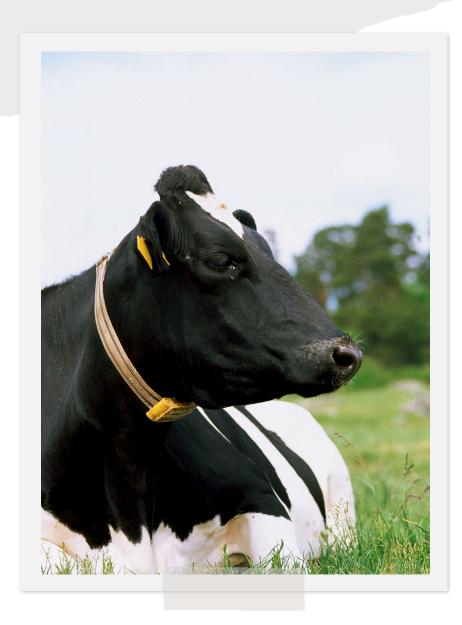
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INTRODUCTION

ONGOING STRUCTURAL CHANGES IN SWEDISH PRIMARY PRODUCTION



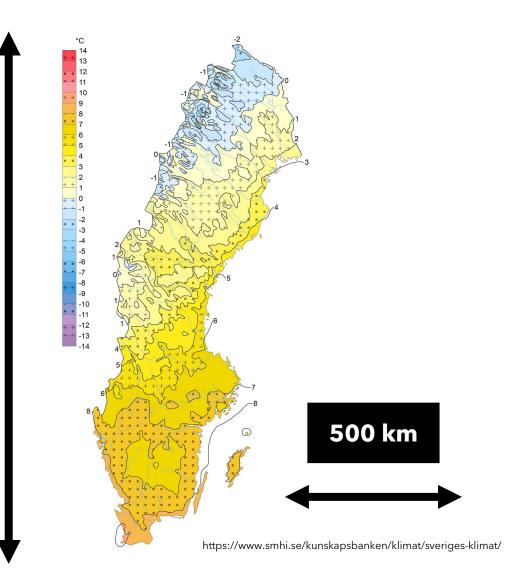
Milk production in Sweden

- Mainly cattle, some goat > buffalo and sheep
 - ~ 2700 dairy cattle farms
 - ~ 296 000 dairy cows
- Milk collected at farms and refined elsewhere
- Dairy cattle a substantial part of meat production
- Production and processing of milk and meat by private actors (family business or corporate company)

Vast country and varying conditions

- landscape and topography
- climate zones
- growing season
- urbanisation
- infrastructure
- access to support / service:
 - dairy plant
 - abattoir
 - veterinarian

1600 km



Small herd of dairy cows on family farm

Total number of dairy farms	Total number of dairy cows	Average number of cows per farm	Average yield per cow per year (kg ECM)	Total prod. of milk (Mn tons)
267 000	1 654 000	6	2900	4,9
45 000	656 000	15	5000	3,3
13 000	430 000	34	6500	3,2
3 200	306 000	96	8900	2,7
2700	296 000	110	11 000	2,8
	number of dairy farms 267 000 45 000 13 000 3 200	number of dairy farms number of dairy cows 267 000 1 654 000 45 000 656 000 13 000 430 000 3 200 306 000	Total number of dairy farms Total number of dairy cows number of cows per farm 267 000 1 654 000 6 45 000 656 000 15 13 000 430 000 34 3 200 306 000 96	Total number of dairy farms Total number of dairy cows Average number of cows per dairy cows yield per cow per year (kg ECM) 267 000 1 654 000 6 2900 45 000 656 000 15 5000 13 000 430 000 34 6500 3 200 306 000 96 8900

Ongoing structural changes

fewer but larger units

specialized systems

clustered in some areas

intensive production

automatic and digital solutions

Small herd of dairy cows on family farm?

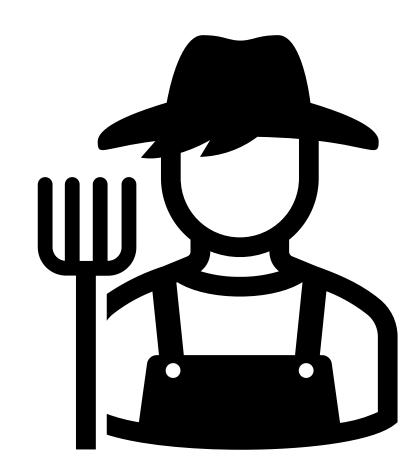
		Total number of dairy farms	Total number of dairy cows	Average number of cows per farm	Average yield per cow per year (kg ECM)	Total prod. of milk (Mn tons)
Г	1950	267 000	1 654 000	6	2900	4,9
	1980	45 000	<u> </u>		5000	
L	2000	13 000	430 000	34	6500	3,2
	2020	3 200	306 000	96	8900	2,7
	2023	2700	296 000	110	11 000	2,8
	2030					

OBJECTIVES

HOW DO PREVIOUS FINDINGS ON FARMER LOGICS APPLY IN THE CONTEXT OF SWEDISH DAIRY FARMING?

Key points

- ! Fewer farms, less diverse production
- ! Highly diverse agricultural landscape and long distances
- ! Huge on-farm changes over a short period of time



Multilevel challenges in primary production

- Input-dependent production
- Milk price fluctuates on global market
- Financing favor resource-efficient production systems
- Global events war, climate change, pandemic...
- Alternatives to traditional succession necessary

Overall objectives

- ? How to build resilient and sustainable primary production
- ? How to motivate farmers to continue in milk production
- ? How to ensure diversity to best make use of the differences in agricultural landscape



Previous research on farmer logics

Demonstrate various motivations behind decision making, related to

- the production of food or feed
- environmental issues
- the life and role of farmers
- management of the farm, agricultural landscape or farmed animals
- entrepreneurship

Previous research on farmer logics

Previous findings either

- not in Sweden,
- not specifically on dairy production,
- use other source of data

→ How do previous findings on farmer logics apply in the context of Swedish dairy farming?

→ How will these findings influence the understanding of Swedish dairy production?

MATERIALS & METHODS

DIGITAL QUESTIONNAIRE TARGETING SWEDISH DAIRY PRODUCERS

Construction of questionnaire

- ✓ descriptive data on the farm, respondent, production
- ✓ **perceived significance** of given factors related to dairy farming in Sweden

statements on

(a) attitudes on farmers life 13 statements

(b) self-identification 2 statements

(c) views on future farming 14 statements

Construction of questionnaire

Respondent asked to state to what extent they agree or disagree with presented statement on likert scale (1-5) or (0-10)

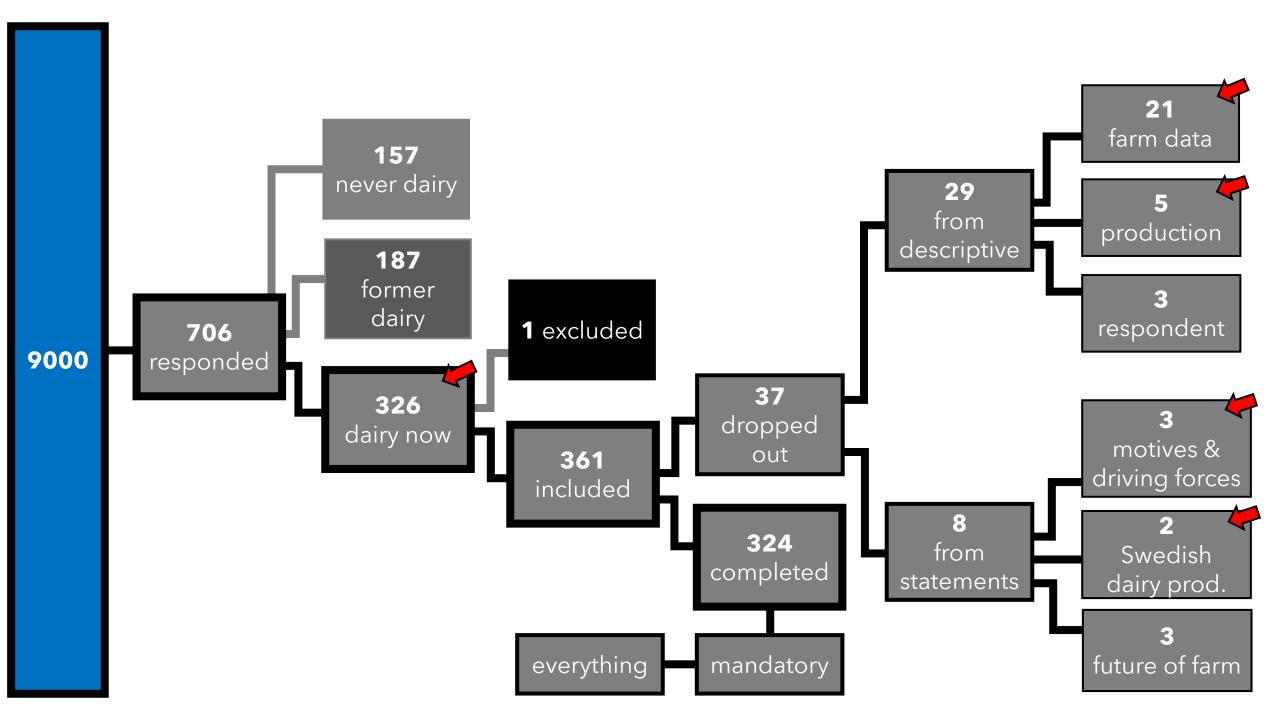
- (1) Do not agree at all -- (3) -- (5) Totally agree
- (0) Do not agree at all -- (5) -- (10) Totally agree

Survey targeting active dairy farmers

- Netigate link (email) distributed to ~9000 registered Swedish cattle farmers in April 2023
- Question branching to separate cattle farmers with either
 - no dairy production
 - previous dairy production
 - active dairy production

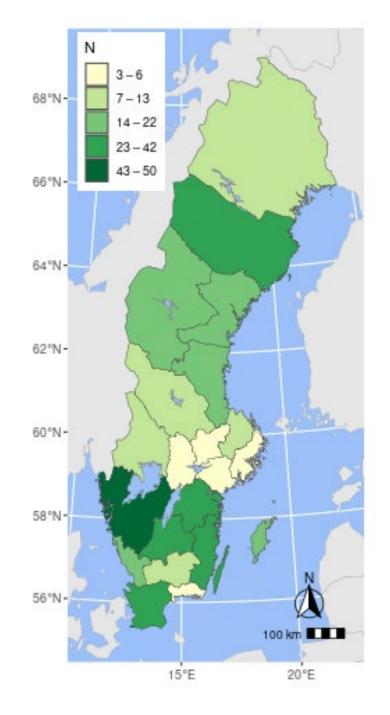
target group: ~2800 farmers

RESULTS & DISCUSSION



The respondents

- **23 87 years old** (median: 55, mean: 54)
- 233 male / 77 female / 2 other / 12 unknown
- **1 2000 dairy cows** (median: 75, mean: 116)
- all counties represented

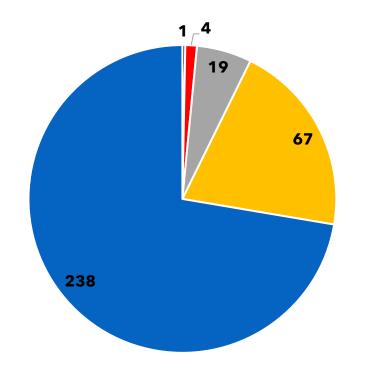


Results

- what drives and motivates you as a dairy farmer?

13 statements likert scale 1-5

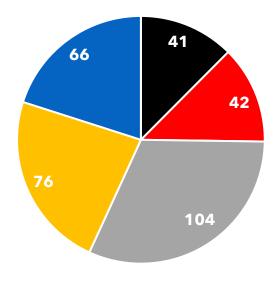
n = 329



- 1 DO NOT AGREE AT ALL
- **2**
- **3**
- **4**
- **5 TOTALLY AGREE**

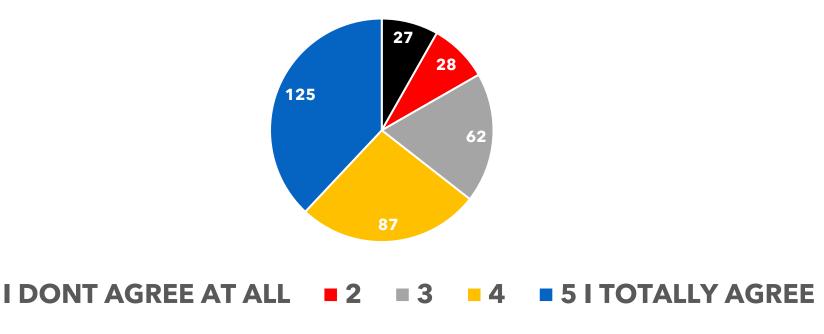
One of the most important goals of my farm is to meet the needs of the animals so that they are well

I can't imagine working with anything other than **COWS**



- 1 I DO NOT AGREE AT ALL
- **2**
- **3**
- **4**
- 5 I TOTALLY AGREE

What is important to me is to manage my family's agricultural heritage in a good way



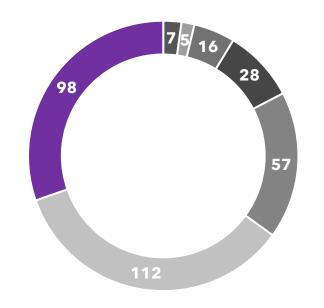
Results

- self-identification

2 statements likert scale 0-10

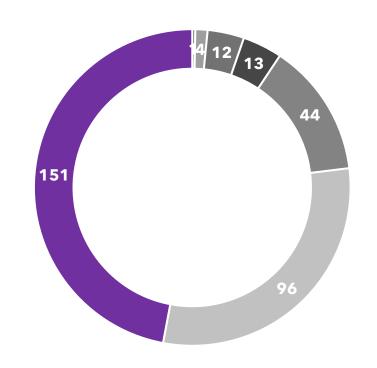
n = 321

I identify myself as an entrepreneur



■ 0 I DONT AGREE AT ALL ■ 1, 2 ■ 3, 4 ■ 5 ■ 6, 7 ■ 8, 9 ■ 10 I TOTALLY AGREE

I identify myself as a farmer



■ 0 I DONT AGREE AT ALL ■ 1, 2 ■ 3, 4 ■ 5 ■ 6, 7 ■ 8, 9 ■ 10 I TOTALLY AGREE

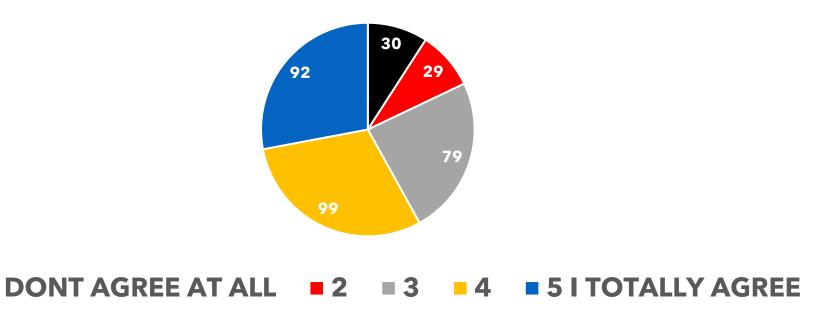
Results

- views on future farming

14 statements likert scale 1-5

n = 329

As a farmer, I have a responsibility to reduce the farm's climate footprint



Continued data analysis

- Is it possible to identify groups of farmers with similar motivation?
- Are there any detectable patterns related to descriptive data on farm or production?

→ How do previous findings on farmer logics apply in the context of Swedish dairy farming?

→ How will these findings influence the understanding of Swedish dairy production?

Discussion

What determines the farm size?

- Number of lactating dairy cows?
- Total number of cattle on the farm?
- Hectare of arable land?
- Definition related to practical conditions animals per robot?
- Dependent on geographical location?





Thank you



Questions, input or comments are more than welcome

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