Session 43: Efficiency and optimization in ruminant husbandry



#### Developments paths of dairy farmers in Slovenia

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Bratislava, 30<sup>th</sup> August, 2012



 Future development paths of cattle farmers in Slovenia

- some results from the past projects

- results from Leonardo da Vinci - ISM project



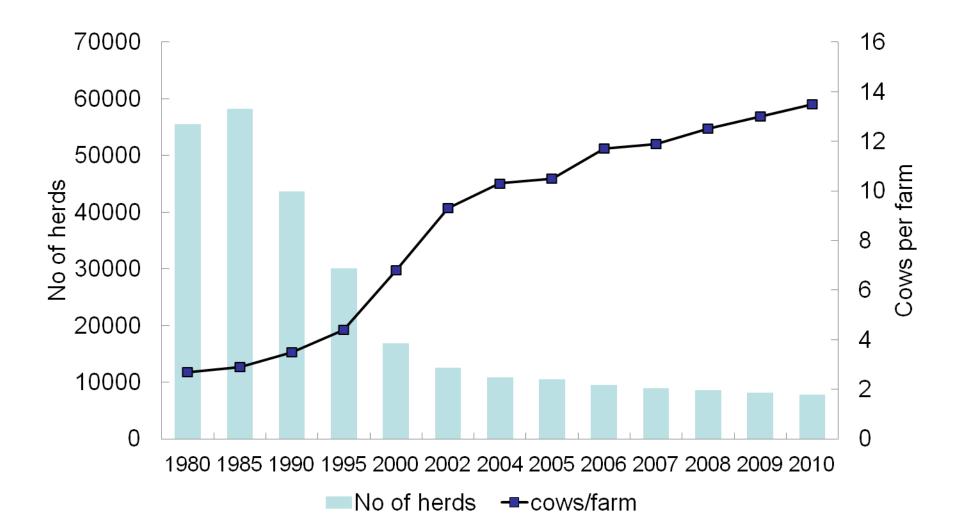
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## Introduction



- Slovenia is country with less favourable conditions for agriculture
- For these countries is typical that dairy herds are small and mainly consist of dual purpose breeds such as Simmental and Brown Swiss breeds
- In the past 10 ha of agricultural land was the maximum allowed
- In EU period the number of farms with dairy cows decreased substantially and the average herd size has grown considerable during the last 10 years

#### Changes in dairy sector



# Goals of twinning projects

- To determine main characteristics of the Slovenian farm and farmer
- To determine differences in future strategies and plans of cattle farmers
- To get insight into the entrepreneurial characteristics of Slovenian dairy farmers
- To make an **external assessment**

### Material and methods

#### **Questionnaire for three groups of farmers**

Group of farmers	Distributed questionnaires		
Cika	269	111	41
Suckler	500	121	24
Dairy	5,000	1,114	22



#### Questionnaire Results



## Characteristics of the farm

Variable (answer)	Cika farmers	Suckler cow farmers	Dairy farmers
Number of farms	111	121	1,114
Average no. of cows / farm	3.8	11.1	19.1
Agricultural land in use (ha)	8.8	12.1	17.1
Type of farm (% total)			
Flat farm	6	17	43
Hilly farm	33	37	19
Mountain farm	46	32	14
Farm with less favourable	15	14	24
land			

## Characteristics of the farmer

Variable (answer)	Cika farmers	Suckler cow farmers	Dairy farmers
No. of farmers	111	121	1,114
Non agricultural employment of farmer/wife	61%	64%	32%
Having a successor on the farm (% YES)	55%	62%	69%
Age of farmer (years)	53 yr.	54 yr.	52 yr.
Education of farmer (% of total):			
Public school	44%	11%	40%
Vocational school / Gymnasium	53%	69%	54%
High school / University	3%	20%	6%

#### Future plans of cattle farmers

	Twinning			
	CIKA %	Suckler cow %	Dairy %	
	n=111	n=121	n=1114	
No future plans/to stop farming / hobby farm	20	14	10	
Keep the farm as it is now	46	55	41	
Develop the farm further	34	31	49	
	n=38	n=37	n=541	
- by increasing number of cows	76	38	64	
<ul> <li>by starting/increasing with a new branch</li> </ul>	82	70	54	
Horses	16	23	6	
Agro-tourism	32	26	5	
Local products	15	14	2	
Changing to organic farming	44	43	6	

## Interest of cattle farmers in different tasks of farming

Tasks	Cika farmers	Farmers with suckler cows	Dairy farmers
Care for animal health and fertility	72	48	77
Feeding of cattle	59	49	75
Management of grassland and pasture	47	<mark>60</mark>	63
Organisation of work / labour input	47	43	63
Farming in economical way / entrepreneurship	37	52	61
Animal breeding work	51	38	60
Working on sound environment (use of fertilisers, manure, etc.)	54	32	51
Protecting nature elements on farm	44	17	26

### Outlook

- Surprisingly farmers had a very high interest in advice about strategic planning (65 %) and a slightly lower interest in farm management issues (62 %)
- Cika farmers are more environmentally aware than dairy and suckler cow farmers and less economically oriented
- Big interest of Cika farmers for organic farming (44%); dairy farmers only 6%;

# ISM project



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#### **Survey**

- Farm features farm characterization
- Farmers' features age, education
- Entrepreneurial features competences, information seeking behaviour, locus of control, knowledge, strategic reflection
- Strategies and goals
- Opportunities and threats
- Future perspectives
- **365 dairy farms** in Slovenia participated in this study

#### Development paths of surveyed Lithuanian, Polish and Slovenian dairy farmers, in % -

**PCA results** - Different sizes of the seven segments per country

	Lithuania	Poland	Slovenia
Specializing growers	43	46	30.7
Down- scalers	19	10	9.6
Independent diversifiers	16	4	12.6
Cooperate among farmers	8	15	15.3
New starters	7	5	6.3
Cooperate in the chain	4	19	13.7
Cooperating diversifiers	3	1	<b>11.8</b> <sup>14</sup>

# Segments described by their farming goals - LT, PL, SI

	1	2	3	4	5	6	7
Farming	Indepen-	Speciali-	New	Coopera-	Down-	Coopera-	Coopera-
Goal	dent	zing	starters	te	scalers	te in the	ting
	diversi-	growers		among		chain	diversifiers
	fiers			farmers			
Sustaina-	6 22	6 20	6.24	6 20	E 96	6.26	6.07
ble quality	6.23	6.29	6.24	6.28	5.86	6.26	6.07
Succes-	5.25	E 02	E 60	E 60	4.67	E 60	4.76
sion	5.25	<u>5.83</u>	5.60	5.60	4.0/	5.62	4./0
Enjoy	E 02	E 01	E 04	F 67	5 50	E 66	F 27
work	<u>5.93</u>	<u>5.81</u>	<u>5.94</u>	5.67	5.52	5.66	5.37
Good ma-	ГЭЭ	ГЭС	F 00	F 40		<b>F</b> 44	4 70
nagement	5.22	5.36	5.08	5.48	4.47	5.41	4.73
Financial	6.54	6.50	6.59	6.54	6.24	6.46	6.32

<u>Underlined</u> significantly higher; **Bold** significantly lower

# Analysis

- The link between development paths and availability of resources
- Availability of resources on the scale 1 (very difficult) to 7 (very easy)
- Concerns:
  - Land (rent / buy)
  - Labour
  - Money (subsidies / credit)
  - Milk quota
  - Knowledge info (extension/private)
- Land and labour availability are the biggest problems for all segments. Particularly downscalers do not have enough labor available

#### Development paths related to resources - LT, PL, SI

	1	2	3	4	5	6	7
	Indepe-	Specia-	New	Coope-	Down-	Coope-	Coopera-
	ndent	lizing	starters	rate	scalers	rate in	ting
	diversi-	growers		among		the	diversi-
	fiers			farmers		chain	fiers
Land	2.55	2.64	2.56	2.80	2.62	2.58	2.44
Labour	2.59	2.57	2.68	2.86	2.48	2.83	2.97
Money	4.21	4.67	4.65	4.59	4.54	4.51	4.32
Quota	4.31	4.63	4.53	4.47	4.44	4.63	3.99
Info	5.13	5.32	5.24	5.28	5.24	5.16	4.52

**Bold** significantly lower

#### Characterization of surveyed Slovenian farms (n = 365)

	In %	Avg. farm size, ha ( <b>rented</b> )	Avg. farmer age, years	Avg. number of dairy cows, heads	Avg. number of family members in FTE
A specialized dairy farm	65	29 ( <b>15</b> )	47	35	2.2
A specialized large scale dairy farm with personnel	1	415 ( <b>410</b> )	50	319	1
An agricultural diversified farm	24	35 ( <b>20</b> )	53	20	1,9
A dairy farm with other non-agricultural activities	10	31 ( <b>16</b> )	47	29	2.0

# Slovenian farms characteristics according to their chosen development paths

	Special- izing growers	Down- scalers	Indepe- ndent diversi- fiers	Cooperate among farmers	New starters	Coopera- te in chain	Coopera- ting diversifiers	TOTAL
No of farms	111	35	45	56	23	50	43	363
Quota size, t	229	125	164	226	231	238	173	205
Milk yield per cow, kg	6888	6021	6277	7172	7218	6582	6782	6742
Apply pasturing in summer, %	41	37	37	39	22	44	47	40
% of farms with more than 50% of income from dairy cows	89	67	68	93	83	86	67	81

#### Conclusions

- For Slovenian dairy farmers cooperation among the farmers and in the chain and diversification are important future paths too
- Regarding farmers goals are some differences between groups (segments) of farmers – need to be anaylised further
- Land and labour availability are the biggest problems for all groups (segments) of farmers in all three countries



#### **Questions?**