



ANIMAL PRODUCTION RESEARCH CENTRE NITRA

Optimisation of economics in dairy cattle and sheep farms in Slovakia

*Krupová Z.¹, Huba J.¹, Michaličková M.¹, Krupa E.²,
Peškovičová D.¹*

¹ Animal Production Research Centre Nitra, Slovak Republic;

² Institute of Animal Science, Prague, Czech Republic

COSTS vs. REVENUES

price * amount of inputs

(feeds, labour,
other direct costs...)

price * production

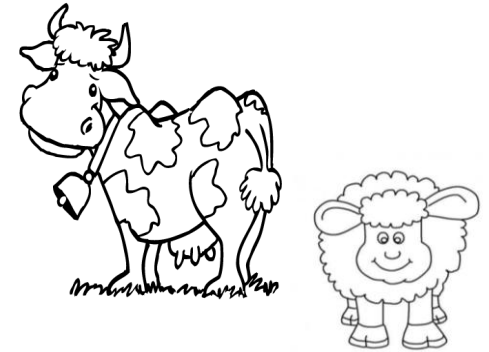
(milk, cheese, lambs...)



ZERO PROFIT (balance)

Aim of the study

- evaluate the profitability of
 - ✓ dairy cattle (19 farms) and
 - ✓ dairy sheep (7 farms) in Slovakia
- the main characteristics of cattle and sheep farms: intensive and extensive

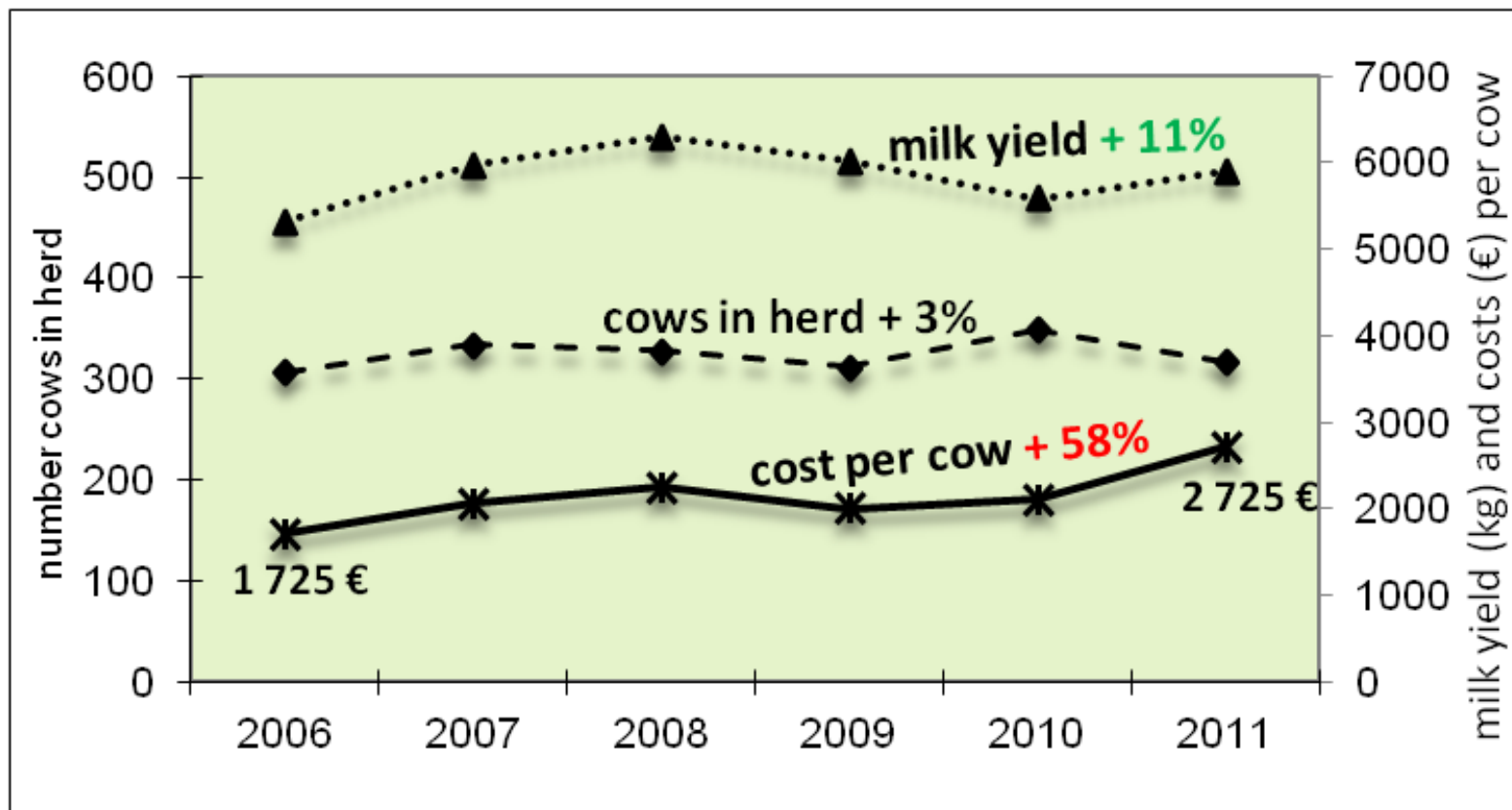


- propose optimal parameters to achieve the economic sustainability



Results (1)

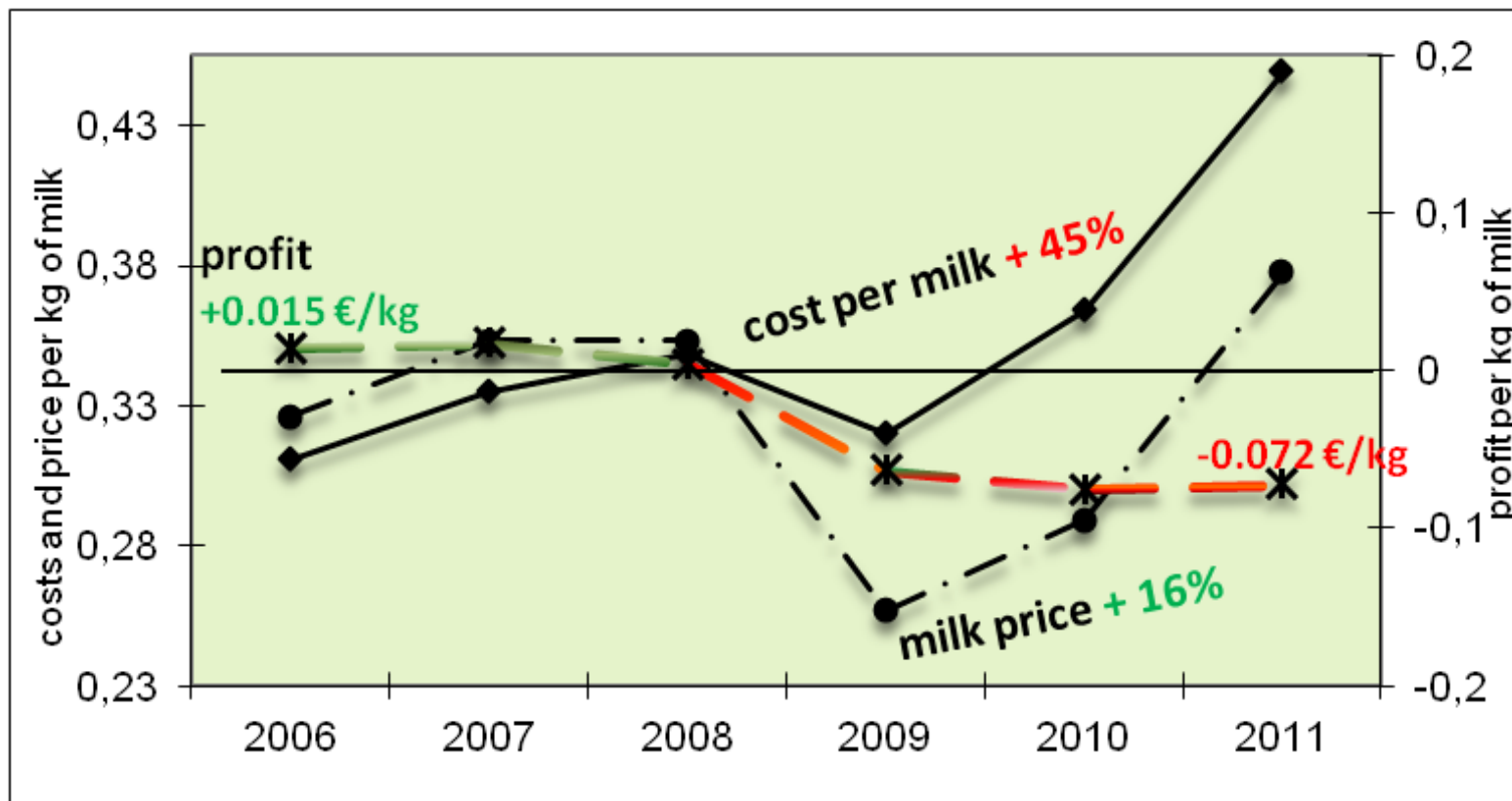
Development of the base indicators in dairy cattle*



*farmers in database of APRC Nitra in 2006-2011; Source: Michaličková et al. (2012). Development of costs efficiency in dairy cattle in Slovakia, EAAP 2012, Session No. 43, Poster No. 13

Results (2)

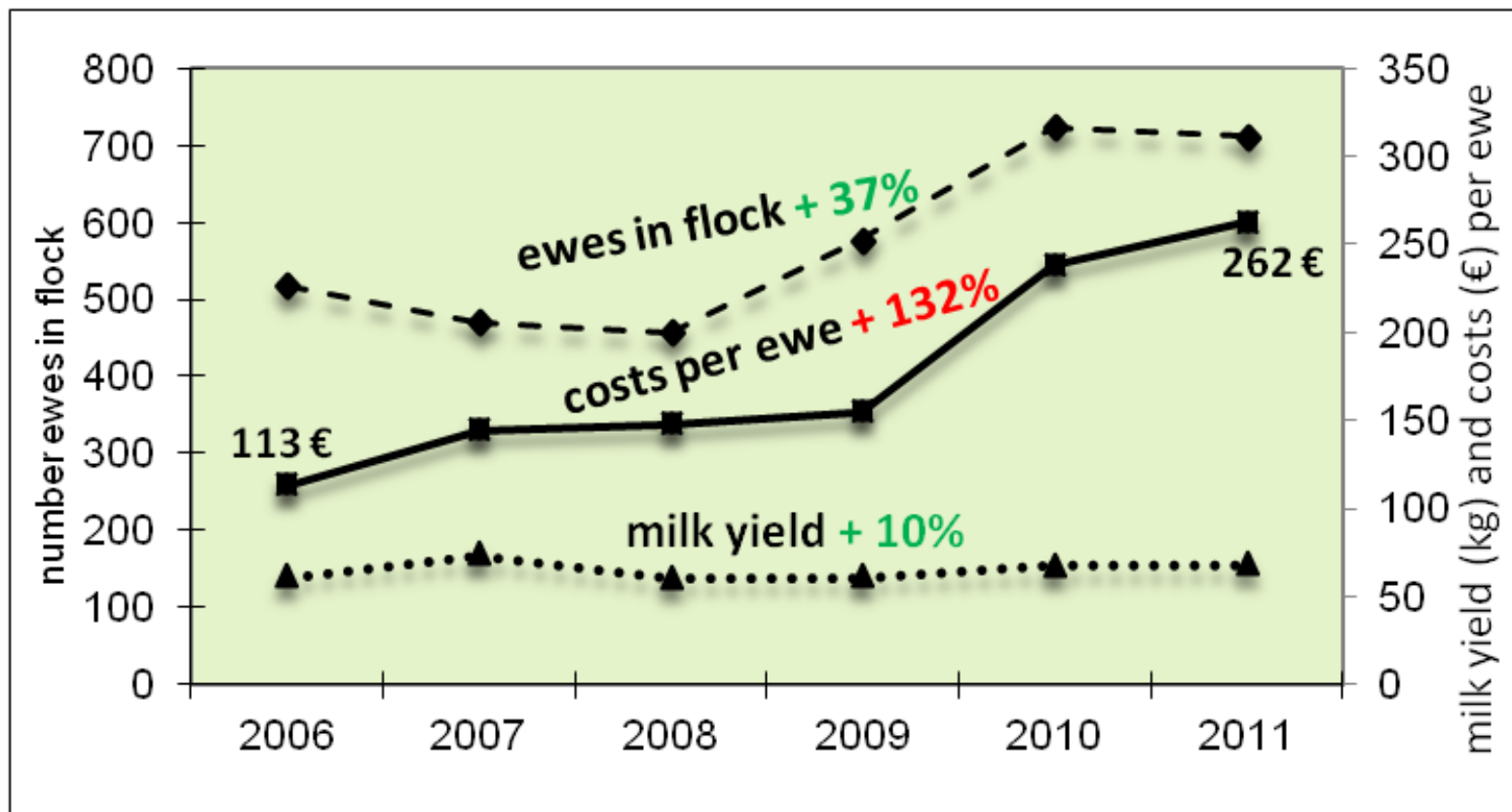
Development of the base indicators in dairy cattle*



*farmers in database of APRC Nitra in 2006-2011; Source: Michaličková et al. (2012). Development of costs efficiency in dairy cattle in Slovakia, EAAP 2012, Session No. 43, Poster No. 13

Results (3)

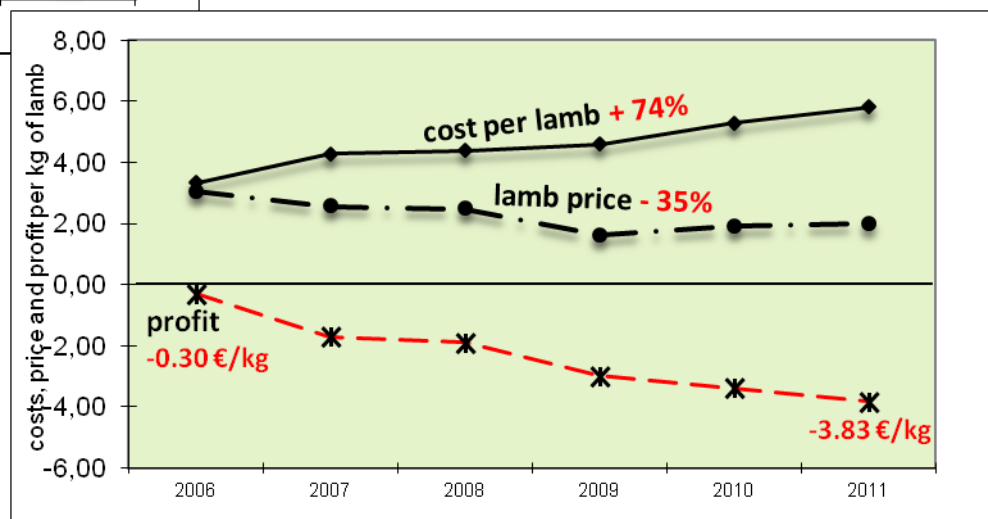
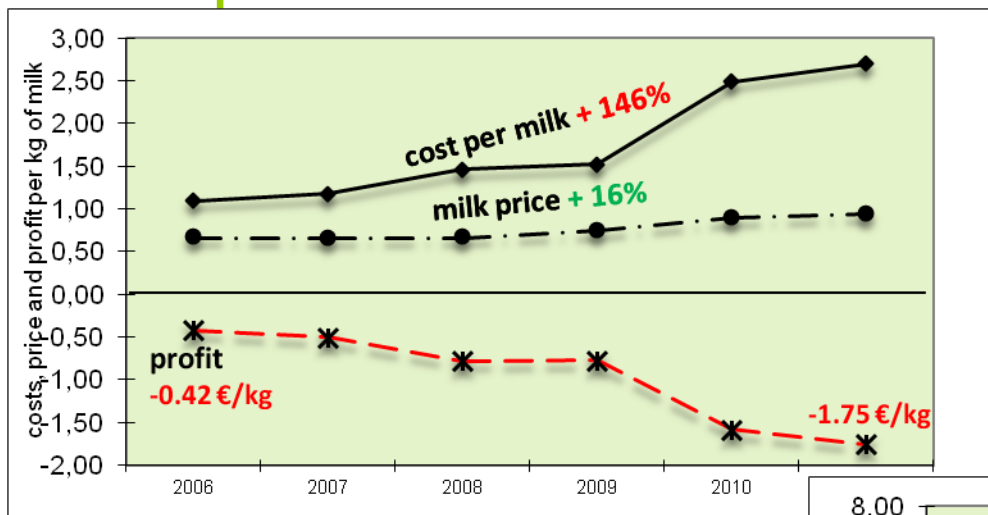
Development of the base indicators in dairy sheep*



*farmers in database of APRC Nitra in 2006-2011; Estimation for the year 2011

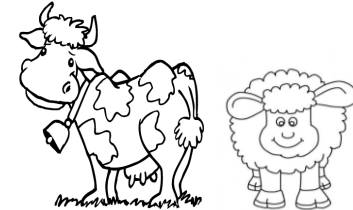
Results (4)

Development of the base indicators in dairy sheep*



*farmers in database of APRC Nitra in 2006-2011; Estimation for the year 2011

Results (5)



The most important cost items in dairy population

Cost item (%)	Cattle	Sheep
Costs for feed	39	23
Other direct costs*	26	41
Labour costs	8	16
Depreciations (non-financial / implicit)	19	16

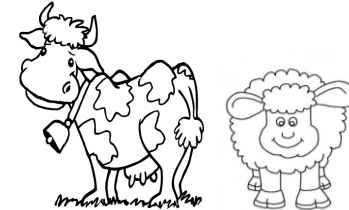
Annual costs per cow and per ewe**

Type of farm	Cattle	Sheep
Intensive	1 823	264
Extensive	1 491	153

* veterinary treatment, fuels, energy, social costs, insurance, transport and other services

** without depreciations

Results (6)



Base parameters of revenues: dairy cattle

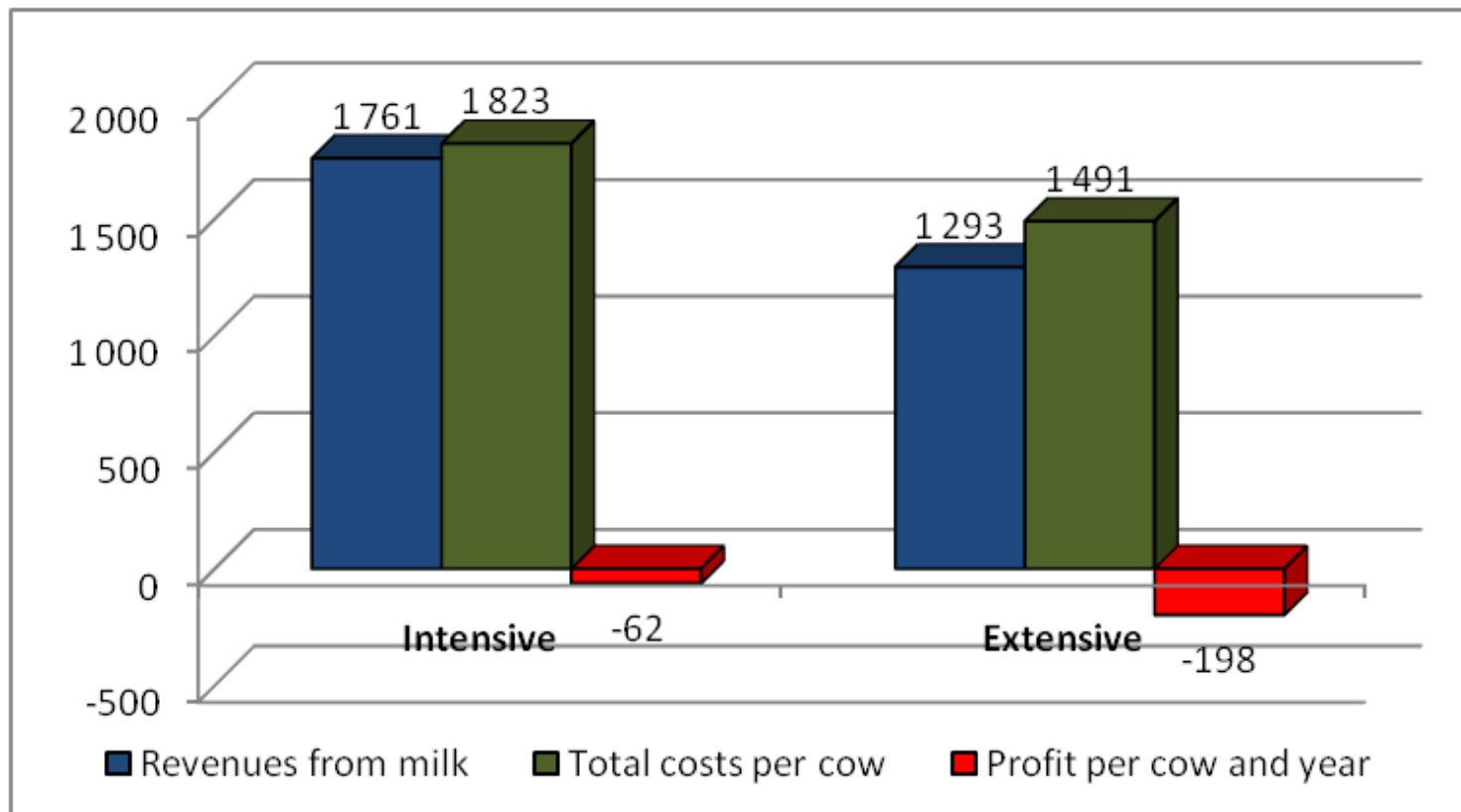
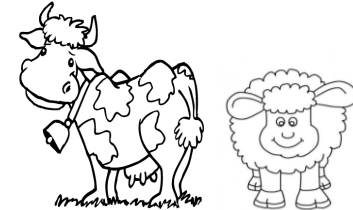
Parameter	Intensive	Extensive
Average milk yield per cow and year (kg)	6 268	4 741
Marketability of milk (%)	94	91
Milk price (€ per kg)	0.229	0.300

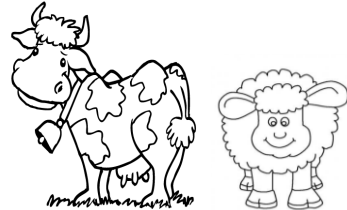
Base parameters of revenues: dairy sheep

Parameter	Intensive	Extensive
Average milk yield per ewe and year (kg)	220	67
Milk price (€ per kg)	0.963	0.827
Cheese price (€ per kg)	-	3.80
Lambs sold per ewe and year (€)	1.47	1.12
Lam price (€ per lamb)	11	22

Results (7)

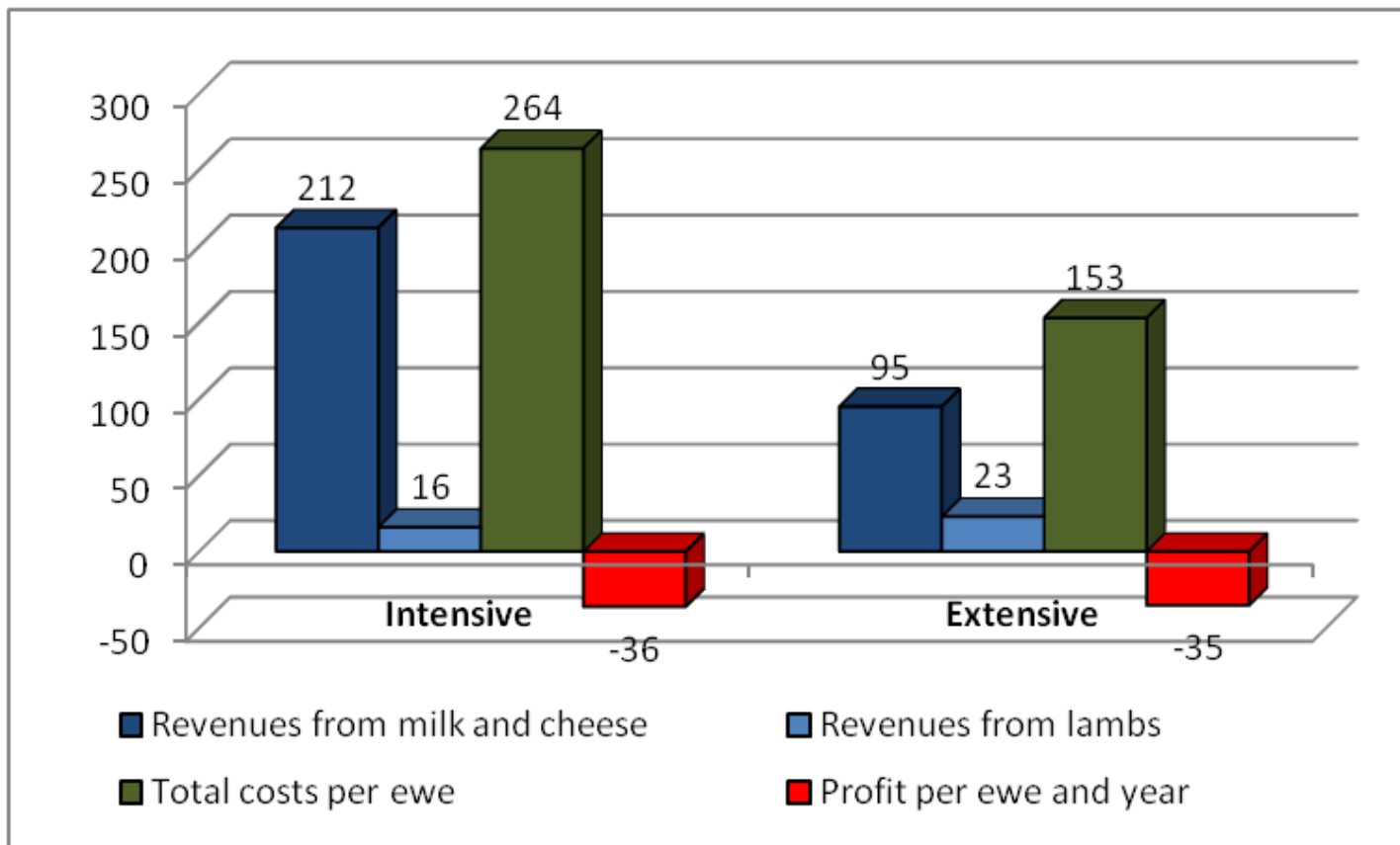
Profit per cow and per year

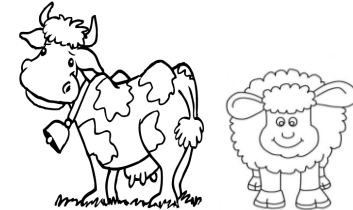




Results (8)

Profit per ewe and per year





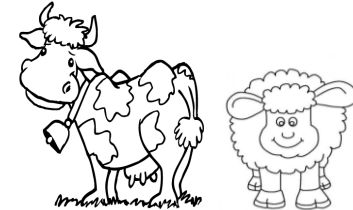
Conclusion (1)

Economic optimisation (intensive / extensive)

in dairy cattle:

- ✓ increase milk yield (8 320 kg / 5 451kg per year)
 - ✓ increase number of lactations per cow life (2.7 / 4.8)
 - ✓ reduce calving interval (400 / 390)

- ✓ join to promote milk price (marketing associations)



Conclusion (2)

Economic optimisation (intensive / extensive)

in dairy sheep:

- ✓ increase milk yield (250kg / 140 kg per year)
- ✓ higher conception rate of ewes
 - ✓ lamb production (1.5 / 1.2 lamb per year)
 - ✓ higher revenues + more effective use of costs
- ✓ join to promote milk, cheese and lamb price (marketing associations)
- ✓ processing milk to cheese



Thank for your attention

Corresponding address: krupova@cvzv.sk

This presentation is in memory of Jozef Dano our colleague, friend and teacher.

This presentation took place during realization of project CEGEZ No. 26220120042 supported by the Operational Programme Research and Development funded from the European Regional Development Fund and by Projects MZE 0002701404 of the Czech Republic. Presentation of this work was supported by the Ministry of Education, Science, Research and Sport of the Slovak Republic.