



ANIMAL PRODUCTION RESEARCH CENTRE NITRA

# Optimisation of economics in dairy cattle and sheep farms in Slovakia

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# COSTS vs. REVENUES

price \* amount of inputs

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

price \* production

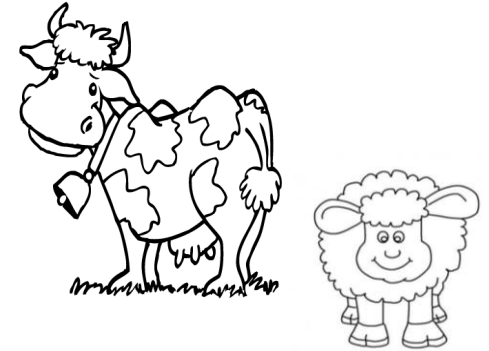
(milk, cheese, lambs...)



**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

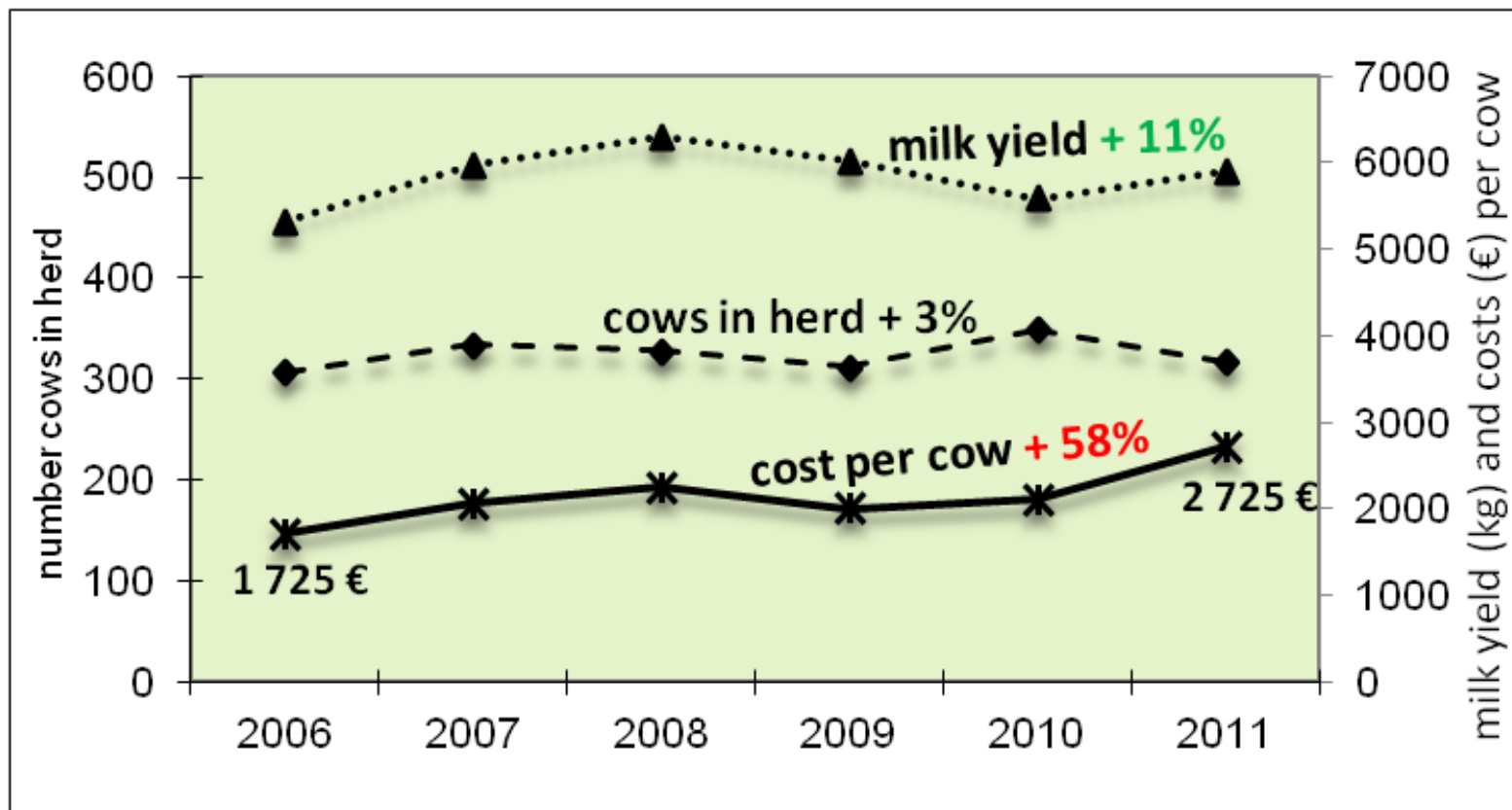


- propose optimal parameters to achieve the economic sustainability



# Results (1)

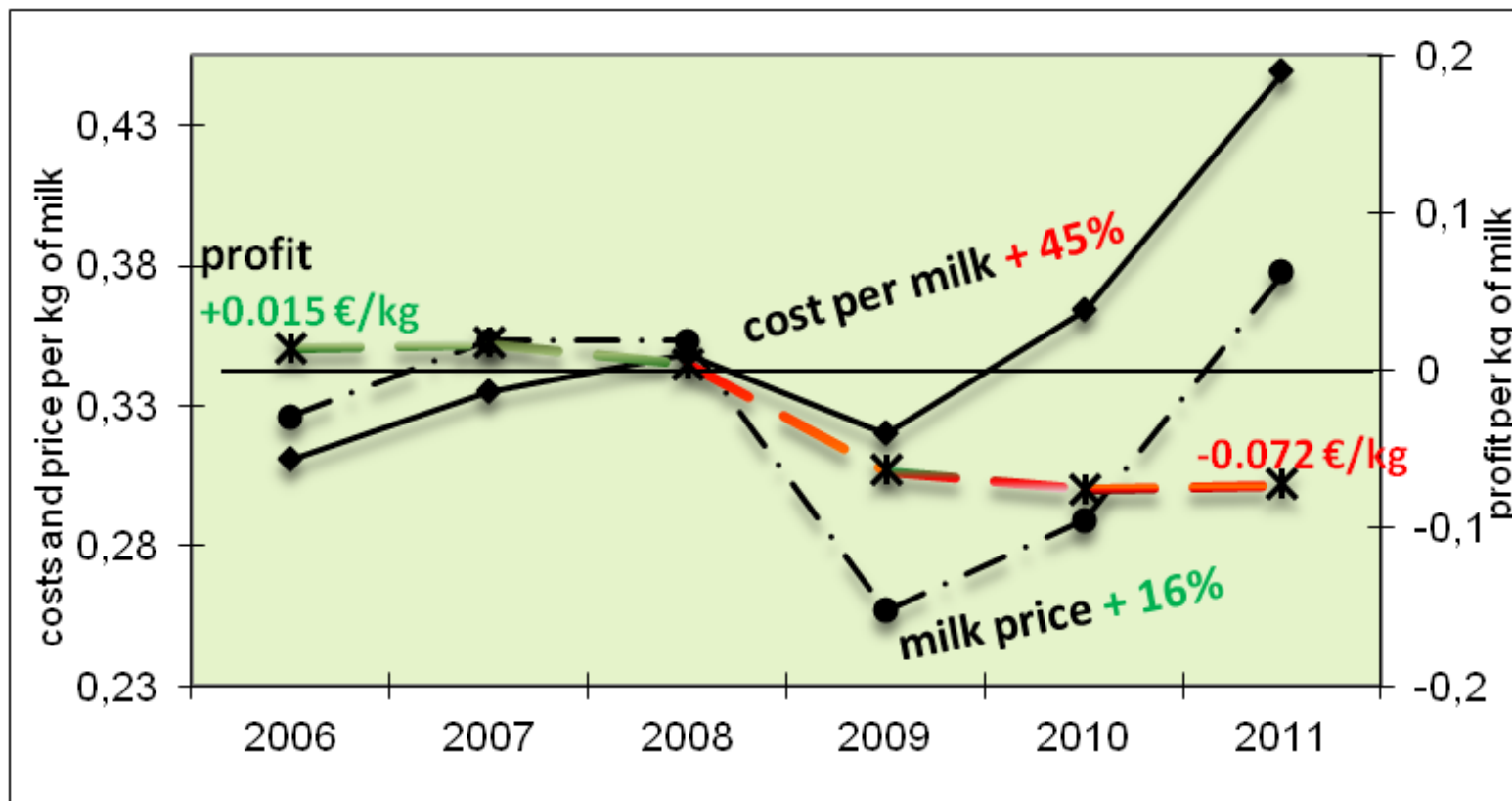
## Development of the base indicators in dairy cattle\*



\*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)

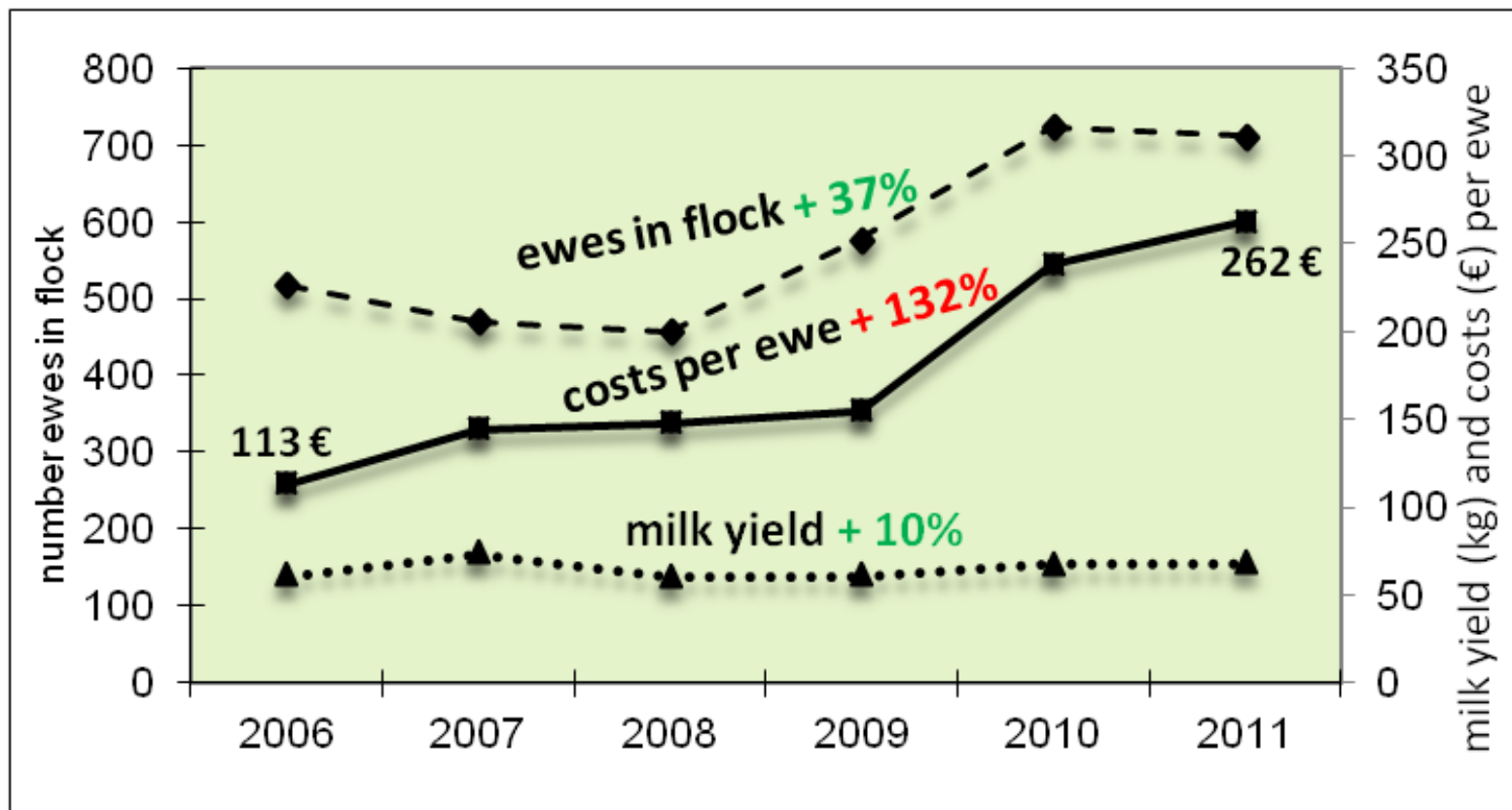
## Development of the base indicators in dairy cattle\*



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# Results (3)

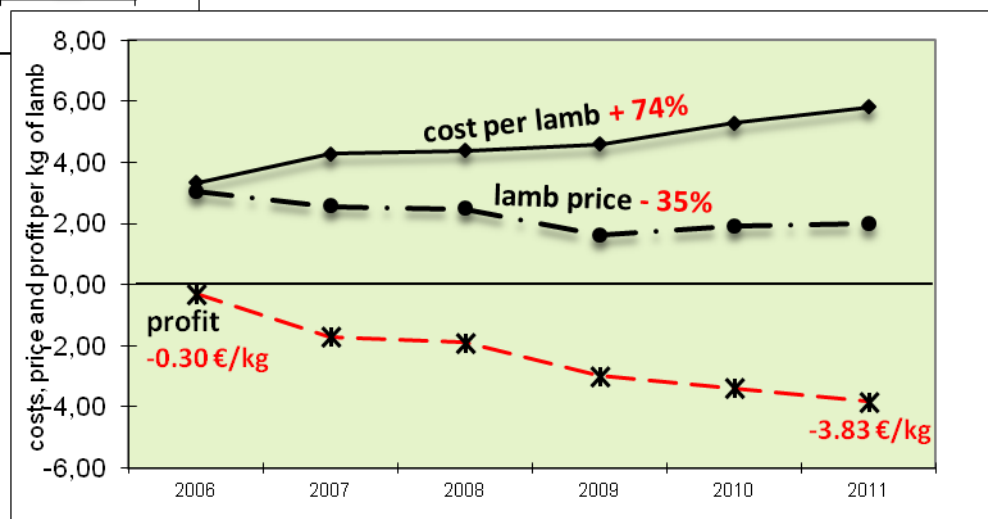
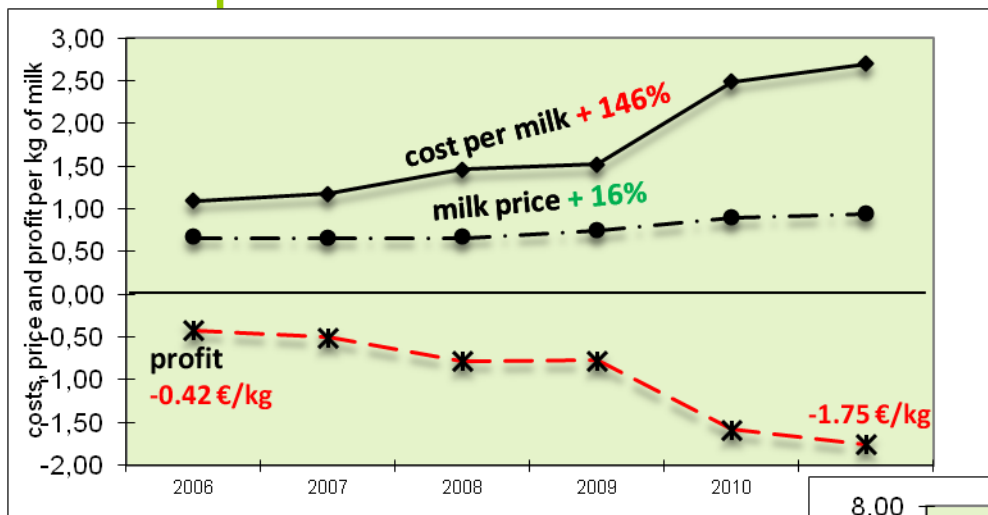
## Development of the base indicators in dairy sheep\*



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

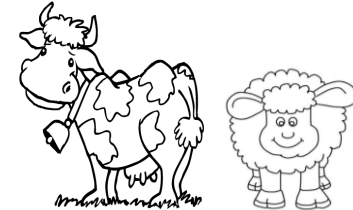
# Results (4)

## 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\*\*

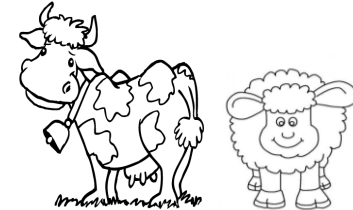
Type of farm	Cattle	Sheep
Intensive	1 823	264
Extensive	1 491	153

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

\*\* without depreciations



# Results (6)



## Base parameters of revenues: dairy cattle

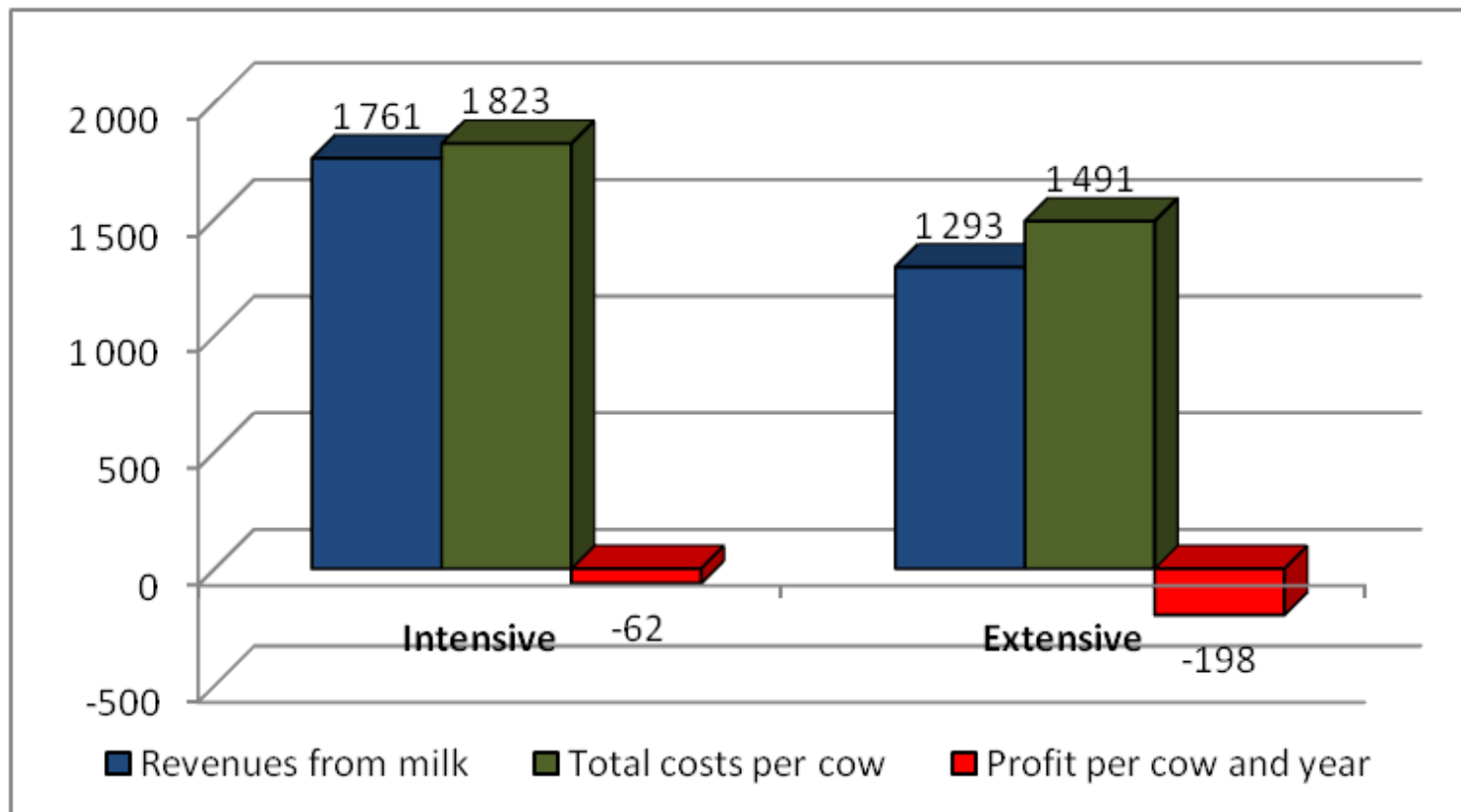
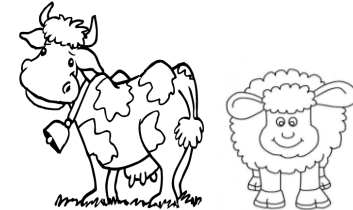
Parameter	Intensive	Extensive
Average milk yield per cow and year (kg)	6 268	4 741
Marketability of milk (%)	94	91
Milk price (€ per kg)	0.229	0.300

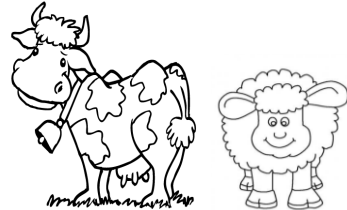
## Base parameters of revenues: dairy sheep

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)

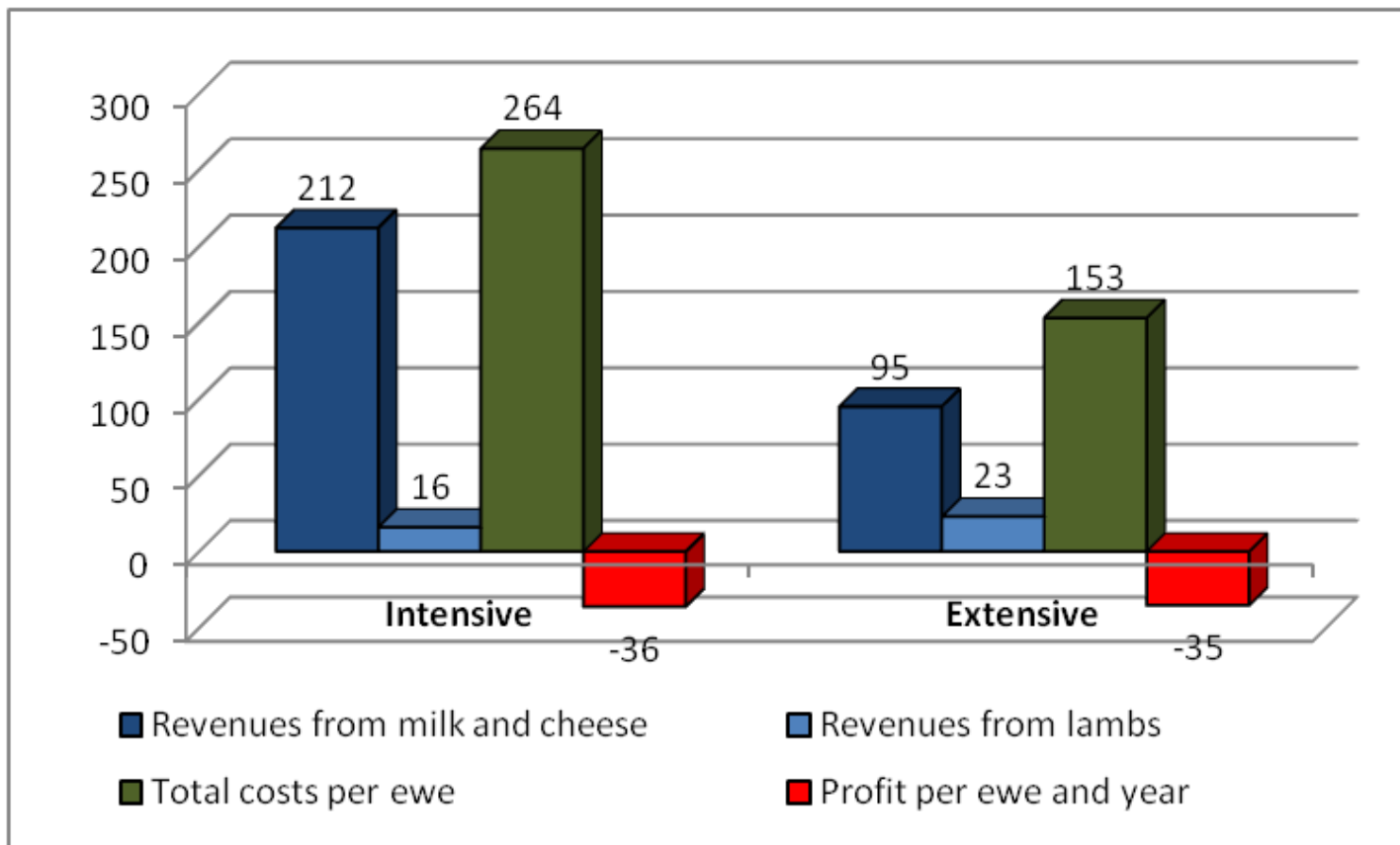
## Profit per cow and per year

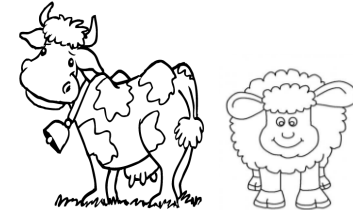




# Results (8)

## Profit per ewe and per year



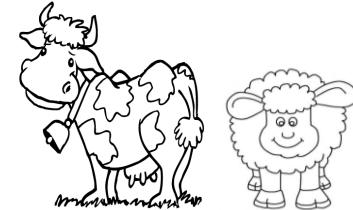


# Conclusion (1)

## 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

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