

Sesion 3

GRAZING GOAT SYSTEMS IN THE WESTERN MEDITERRANEAN AREA: PRESENT SITUATION AND FUTURE CHALLENGES. CASE STUDY OF SPAIN.



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1. Introduction

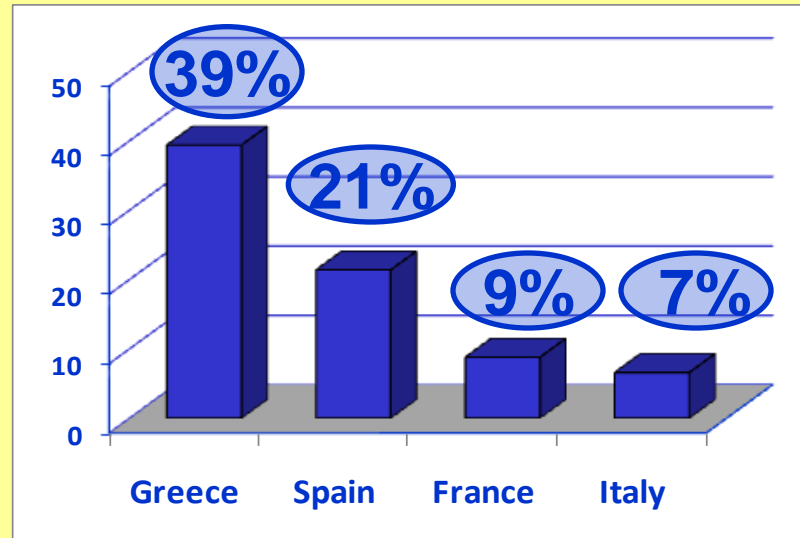
38 millions of goats in the Mediterranean Basin
17.0% goat milk and 4.7% goat meat worldwide



European countries have 35 % of heads and produce 73 % of milk of the total mediterranean production.

1. Introduction

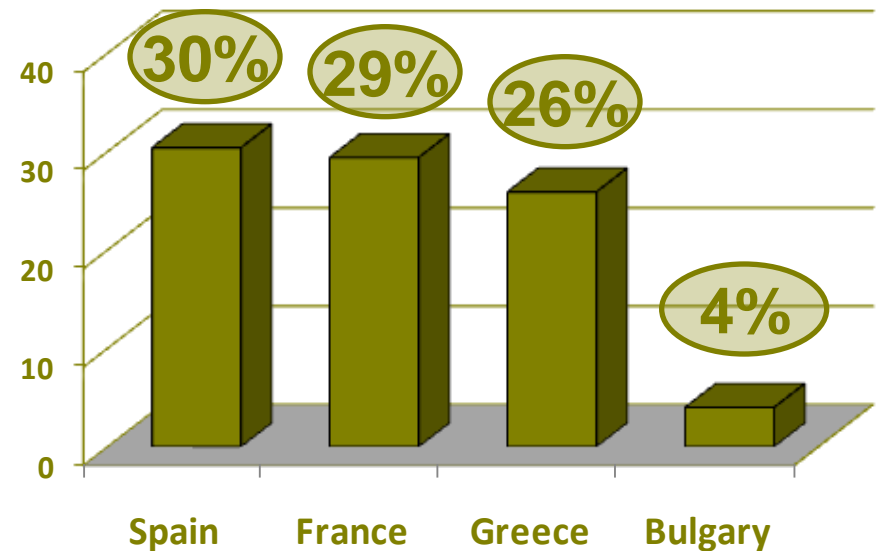
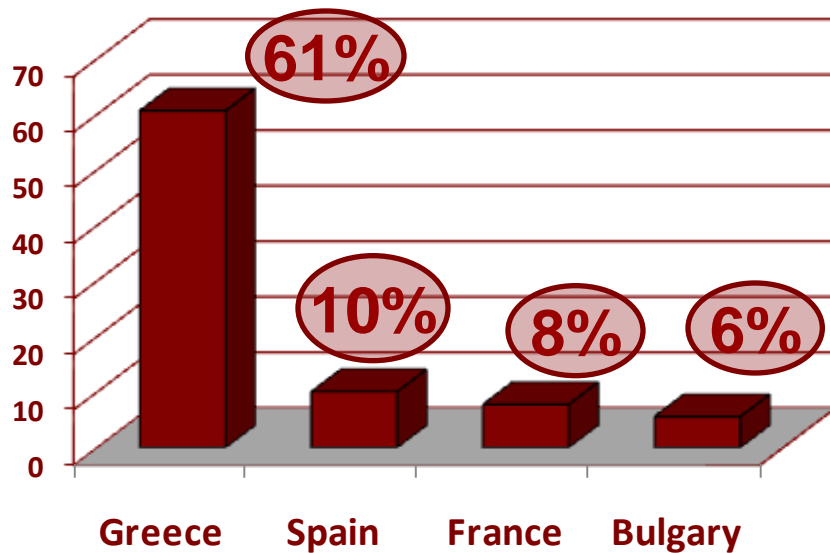
EU-2008



13.8 millions of goats heads

91.4 million kgrs. of goat meat

1.948 million liters of goat milk



1. Introduction

Goat systems have
traditionally been related
to grazing

Goat grazing systems offer
several advantages:

- environmental
- sociological
- nutritional

1. Introduction



Positive effects of grazing on the environment:

1. Supports biodiversity, maintains heterogeneous landscapes
2. Prevent soil loss and forest fires



Important social function:

1. Fixing population to rural areas
2. Maintaining traditions

1. Introduction

Goat is a valuable culture and production feature which can contribute to local development



Products from
grazing systems
present:



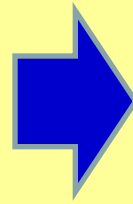
Micro-components (fatty acids, vitamins)

Volatile compounds (flavours, terpenes)

1. Introduction

Direct subsidies

Agroambiental aids



24-30 €/goat and year



Meat oriented farms

**≈ 60% of
total
income**

Milk oriented farms

**≈ 12% of
total
income**

In Andalusia:

- 38% of the Spanish goat census**
- 50% of Spanish goat milk production**

1. Introduction

Evolution of grazing goats holdings (Source: EUROSTAT)

Figure 1.

Large holdings:

- > 30 ha of grazing area
- > 50 goats of size head

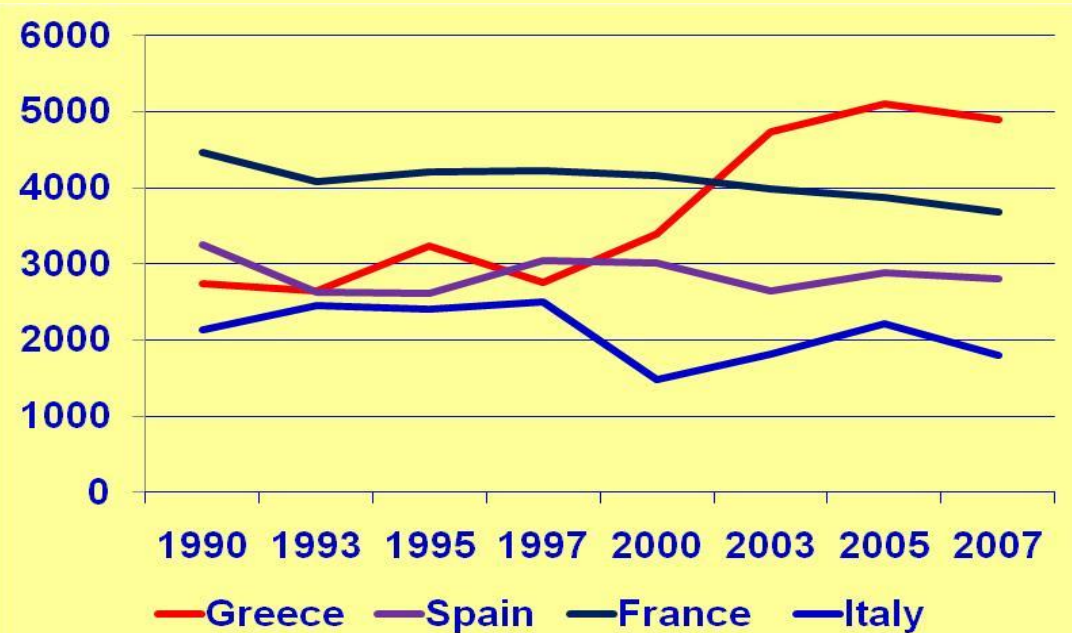
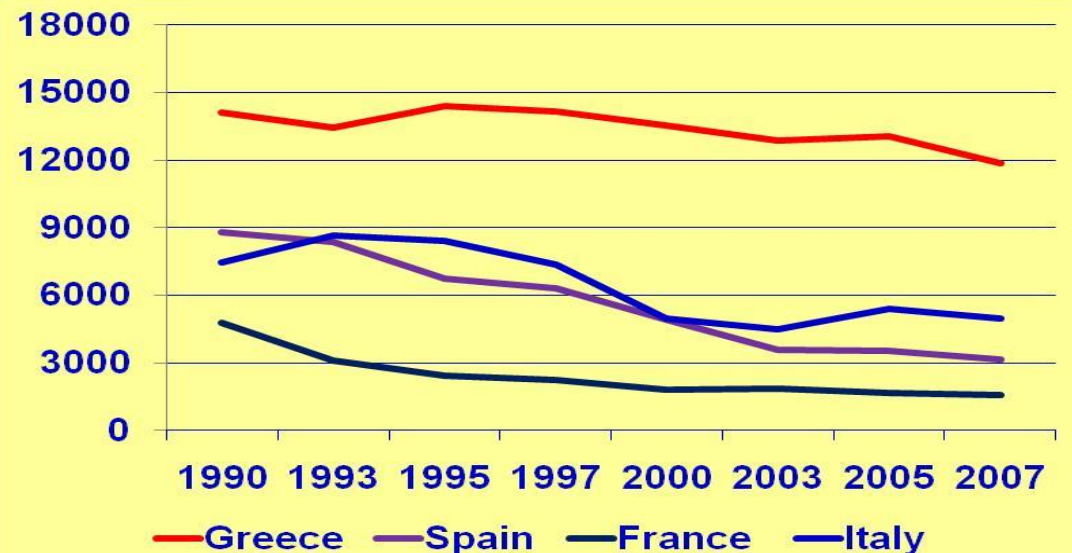


Figure 2.

Small holdings:

- 5- 30 ha of grazing area
- 10-49 goats of size head



1. Introduction

This decrease of grazing systems have been well documented in the literature and it's due to several different reasons

Increase in
demand
for goat milk

Lack of
shepherds

Elimination
seasonality
production

Use of breeds with
highly productive
potential

Difficulties of
grazing

Rising land
prices

Can we do something to stop or
even change this tendency?

2. Analysis

Traditional goat production systems in Spain

Up to the 80s, the traditional Spanish goat system was focused:

1. Producing heavy goat kids (20 to 25 kg) for meat
2. Producing cheese manufactured by the farmer

Social changes (90s to now):

The demand for kid meat shifted in favour of one-month-old suckling kids (8 kg live weight).

2. Analysis

Legislative changes:

The stricter health standards discourage traditional cheese manufacturing and marketing

- 85 % of the goat milk produced in Spain is sold at few big industries
- 25 % of milk is exported to France

2. Analysis

Economical changes:

In the 90s, increase in the price of milk and stability in the prices of feeds



Farms have increased their size, and become intensive, with less grazing and more supply of concentrate feed

Last years: feed prices have gone up and milk prices have fallen



Farmers to go back to grazing their goats

€

2. Analysis

Grazing systems

Goats graze through-out the year,
specially located in mountain areas

Goats graze fallows
and stubbles
(seasonal grazing)

Meat oriented

Milk oriented



Familiar
manpower

Well-adapted
indigenous breeds.

2. Analysis

Meat producing farms and ones based on marginal lands are in crisis

Meat oriented goat grazing systems

- 4,5 €/kg live weight
- Decrease of demand

Seasonal milk oriented goat grazing systems

- Land use problems
- Flock should be keeping by shepherd for grazing

2. Analysis

Goats graze through-out the year located in mountain areas



Natural pastures,
mainly brush.

0,47 ha/goat



Cultivated forage field
for direct consumption


0,08 ha/goat



Supply indoors every days

2. Analysis

Table 1. Indicators for dairy goats grazing systems derived from three Mediterranean countries (France, Spain, Italy)

	Cluster 1	Cluster 2		Cluster 4
Total area per goat (ha)	0,51	0,85	0,70	0,95
Herd size	113	184	540	117
Concentrate (kg/goat)	250	171	284	222
Forage (kg/goat)	233	89	51	399
Milk sold (l/goat)	334	214	317	482

Source: Ruiz et al. 2009

2. Analysis


Goat feeding is inappropriate as the farmers do not combine grazing and feed supplements adequately

Net energy from grazing (%):

- 50-70% of total energy requirements (milk flocks)
- Around 90% of total energy requirements (meat flocks)

2. Analysis

Table 2. Comparative analysis between two dairy goats farms located in mountainous areas of Andalusia (Payoya breed, 2008)

Farm	ha/goat	% NE ¹	Expenditure/goat ²	Income/goat ³
				
Semiintensive	0,28	46	110 €	194 €
Semiextensive	0,85	69	72 €	188 €

¹ Percentage of necessities of Net energy covered by pasturing

² Annual purchasing grain to feed to goats

³ Annual milk income per goat

2. Analysis

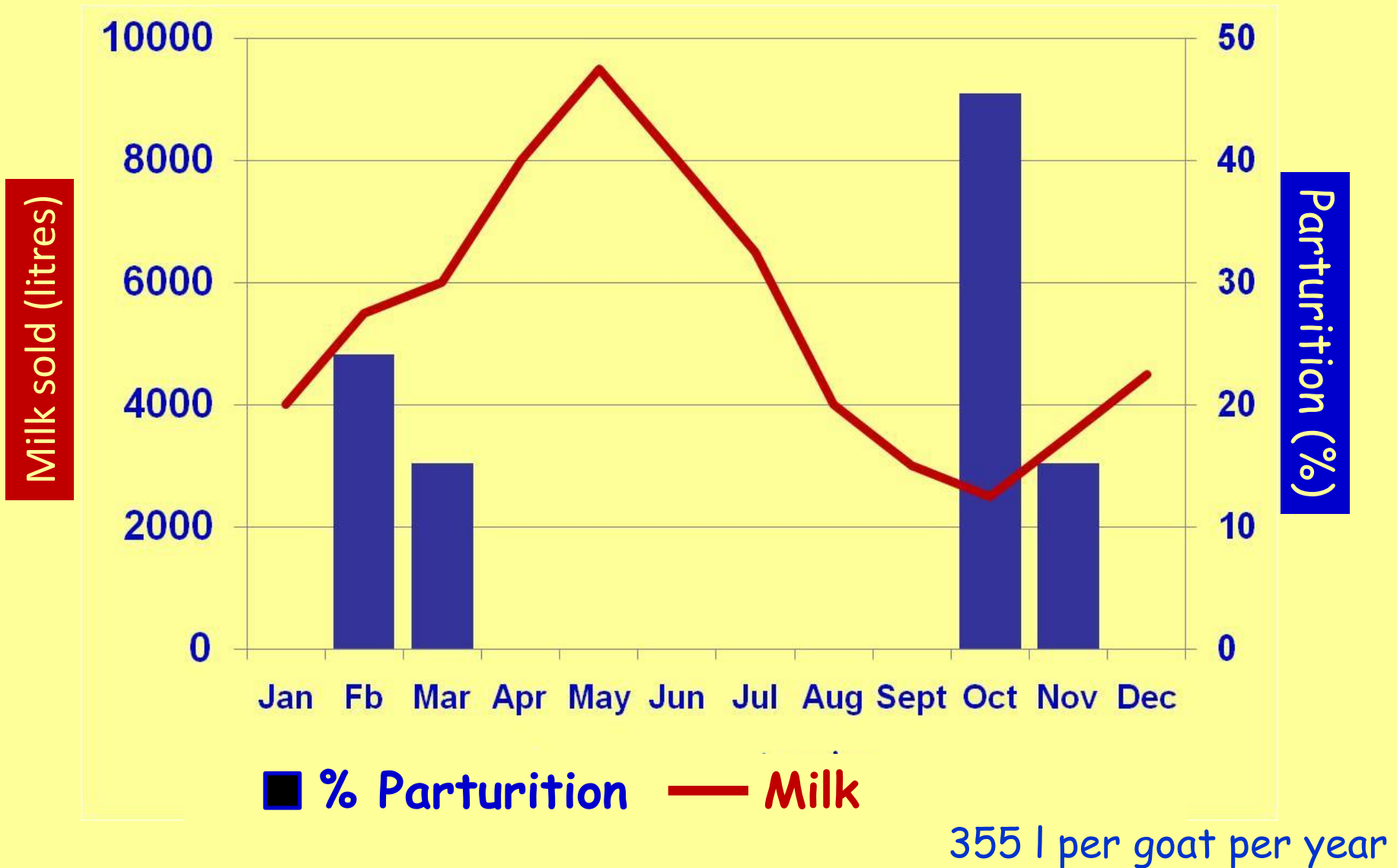
Proportion of Net Energy obtained from grazing remains almost constant through the whole year

1°. Goats use a large and diverse pasture surface

2°. Reproductive seasonality

2. Analysis

Fig. 4. Evolution of monthly milk sold and parturition for semiextensive farm



2. Diagnosis

Diagnosis: internal analysis

Weaknesses:

1. About pastures: high seasonality, low quality, difficulties for cultivation
2. Inappropriate feeding supplementation
3. Farmers with low level of formal education and limited extension services
4. Lack of organization in the work force and integral management
5. Low quality of life of farmers
6. Goat farmers dispersed and poorly organised (< 10%)
7. Few organizations that can offer support

2. Diagnosis

Diagnosis: external analysis

Threats:

1. Increase in production cost
2. Decrease in milk and meat prices
3. Lack of specialized manpower
4. Lack of young people interested in the caprine activity
5. New CAP:
 - Eco-conditioning
 - Total decoupling
6. Lack of interest of population for goat products

Opportunities:

1. Increasing demand for high quality of goats products
2. Recognition of goats as valuable tools for environmental stability
3. Support by Government, farm associations and research centers.
4. The rural goat sector is beginning to be organized.
5. New CAP:
 - Rural Development

2. Diagnosis

Actions taken by the regional and national Government



"Goat action plan by the Government of Spain"

Official contract farmer - dairy industry



JUNTA DE ANDALUCIA

1. Flexible standards for traditional cheese factories in Andalucía

2. Payment to shepherds for grazing as a tool for fire prevention

3. Andalusian Shepherd school

2. Diagnosis

Actions taken by the rural goat sector in Andalusia

"Malagueña" breeders association

"Malagueño"
Sucking kid



13 Rural development groups

Quesándaluz
(Andalusian cheese heritage)



3. Challenges

To keep this systems from disappearance, bearing in mind their important role in the environment, social and economical fields,



WE NEED TO

Keep younger generation leading the grazing goat farming.
For that, it must be enjoyable and profitable.



FOR THAT:



Enhance and promote the
benefit of the systems and
products

&

Mitigate the weaknesses
of the systems



AGROECOLOGY

Discipline that defines, classifies and analyzes agrarian systems from agronomic, organic and socioeconomic viewpoint

3. Challenges



WE HAVE TO

**i USE NATIVE KNOWLEDGE,
BEFORE IT IS LOST !**

Improve the performance
of native breeds without
the lost of their
adaptation ability


- Improve pastures
- Rational organization of grazing and supplementation
- Suitable reproductive management



**To guarantee a constant and significant supply
of feeds from pastures (min. 50%)**



**Use on-farm
resources and
recycle on-farm
nutrients**



**Preserve
resources as soil,
energy, genetics**



**Produce healthy,
safe and quality
foods**

3. Challenges

Traditional, quality and differentiated products

I USE NATIVE KNOWLEDGE, BEFORE IT IS LOST !

Generate and promote valuable information about their characteristics

Implement a trazability program

Promote their consumption

Use alternative markets

Process food before selling them

Cooperatives

Interprofessional

Link farmers with consumers

3. Challenges

Integral extension services and suitable planification



Improve
management and
economical
margins

Improve
quality of life

Spare time for farmers to
dedicate to transforming
and marketing



Enjoyable, profitable
and attractive bussiness
for young people

Even avoid the
dependence on external
subsidies

PROMOTION MULTI-DIRECTIONAL TRANSFERENCE OF
KNOWLEDGE, AS OPPOSED TO "TOP-DOWN" KNOWLEDGE
TRANSFER.

Ensure that local people control their development process

4. Conclusion

To keep goat grazing systems from disappearance



All of us must assume the challenge of making them sustainable



4. Conclusion

COMMITMENT

Farmers and
extensionist



Using resources rationally

Specialist, researchers
and teachers



Working integrally on the
current and future needs of
goat grazing systems

Government



Supporting effective plans for
the development of the rural
sector

Consumers



Paying fair prices for local
products