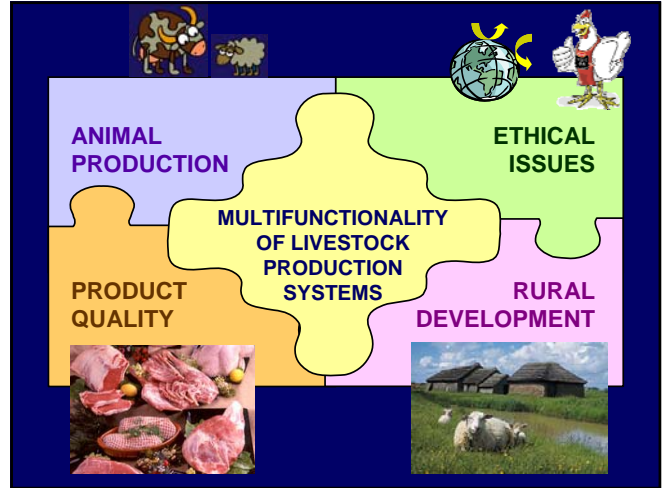


**Societal demands for safe and high quality meat production. Environmental considerations**



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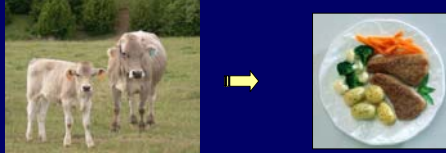


**Society's perception of meat quality**

**What is quality?**

Goodness of the product for people at different stages in the meat chain

*from producers ... to consumers*



*Role of non-consumers in society*

**Quality for consumers**

**Intrinsic quality**

- Hygienic quality
- Nutritive quality
- Organoleptic and sensorial quality



*Influenced by production system and whole chain management*

**Extrinsic quality**

- \* \* \* Feeding and origin
- \* \* Animal welfare, environment
- + Breed, processing and storage



**Livestock impact on the environment**



**INTENSIVE vs. EXTENSIVE management**



**Pollution**  
*air, soil, water*



**Erosion**

**Encroachment**

**Small-scale:** animal-plant interactions

**Large-scale:**

Landscape diversity: *open pastures ... fauna diversity*  
**vs.** Environmental hazards



*Grazing by livestock is often the only tool for an adequate management of natural areas integrating both productive and landscape preservation goals*

## Environment resources for meat production

- **Grazing by dams**  
maintenance of the herd  
finishing offspring off pasture
- **Grazing by offspring**  
grass-produced meat



### Questions to be solved

- What kind of pastures
  - > surface availability
  - > forage production and quality
  - > alternative uses
- What kind of animals
  - > physiological stage
- What can be expected
  - > animal performance
  - > environmental impact

Genetics and production    Feeding management  
Feed resources    Reproductive management

Old questions, new approaches



**Objective:** quality of production and system economic performance

different  
animal  
types



different  
performance

complementarity

different  
pastures



different  
environmental  
impact

## Grazing by offspring: grass-produced meat

Effects of grazing vs. fattening with concentrates

- **PERFORMANCE**
- **CARCASS QUALITY**  
Dressing percentage  
Conformation  
Fat score
- **MEAT QUALITY**  
Organoleptic and sensorial quality:  
*texture, flavour, taste, colour*  
Nutritive quality:  
*PUFA, CLA, omega-6:omega-3*



Traceability of feeding system?

### Quality attributes relating livestock and the environment

- Environmental sustainability
- Geographical origin and typicity
- Differentiate product quality
- ...
- Economic performance of the food chain



EU and Target  
countries

**Opportunity for differentiation**  
- production system  
- product quality

and further  
research...!



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