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# Changes in work in livestock farms : from general trends to the implication on LFS approaches

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(Inra, Irstea, Vetagrosup)

# Plan

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- Work in agriculture is changing
- R&E purposes and LFS framework
- 3 models of work in approaches to LFS
- Conclusion

# Work in agriculture is changing ! (1)

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- Increasing size of farms (F : 31 ha (1988) to 55 ha (2010))
- Decrease of farm numbers (2000 – 2010 . F : - 22 % ; D : -36 % ; I: - 24 %...)
- Decrease of agricultural workforce (2000 – 2010. F: - 26%)

## **Huge productivity gains !**

- F : AA/AWU : +3% / year since the 80's.
- F : In value : *twice* the productivity gains in the general economy

(Agreste 2010, Charroin et al. 2012)

# Work in agriculture is changing ! (2)

- Sociological changes
- The end of the « peasant toil »
- Dairy farmers demonstration (2011)



« Is Time for... »

**Social life, leasures,  
Holidays...**

*Sufficient*



40 %

*Non Sufficient*



60 %

(Seegers et al. 2006) (452 dairy farmers)

**Workload is a problem**

# Work in agriculture is changing ! (3)

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- Diversification of household activities (F: more than 50 %),
- Farmer's pluriactivity (2010 F : 22 %)

**Farming and other activities :**

juxtaposition, overlap, subordination

**Work problems :**

not only workload, but arrangement between activities

(Agreste 2010, Blanchemanche 2000)

# Work in agriculture is changing ! (4)

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- Changes in workforce composition

(F : 2000 – 2010 less family workers ; more salaried staff and tasks externalisation ; cooperation is still present)

## **New stakes on labour organisation**

- . Specialisation vs polyvalency
- . Farmers, volunteers, mutual help, salaried staff, enterprises (autonomy, sharing, delegation...)

# Work in agriculture is changing ! (5)

- Innovations change the work
  - NTIC / precision and livestock : new relation with animals and information
  - Automatisations (robot...) : routine / daily work
  - Organic : « spend time observing nature and animals ! »
- Workload as a brake to LF system innovation

in Southern countries, where capital can't substitute (Herve et al. 2002, Hostiou 2009)

**Changes in livestock management and technologies are changes of the work content**

**Tasks (nature, rhythm, « delayability », « delegability »),  
peaks of work, workers competences**

# A Research – Extension Network for an orphan and complex question

## « Work in livestock » (RMT) Network

- LFS : Integration of the work dimension into the analysis of how livestock farming systems operate and adapt at a year level : *theoretical frameworks, qualification and evaluation methodologies*, national database and clinical approaches
- Emergence of a new topic for extension services, development of advisory tools and of teaching frames (*with different models of work*)
- Operational solutions for farmers
- What are the working dimensions when thinking of the future paths of development of livestock farms

(Dedieu et Serviere 2012)

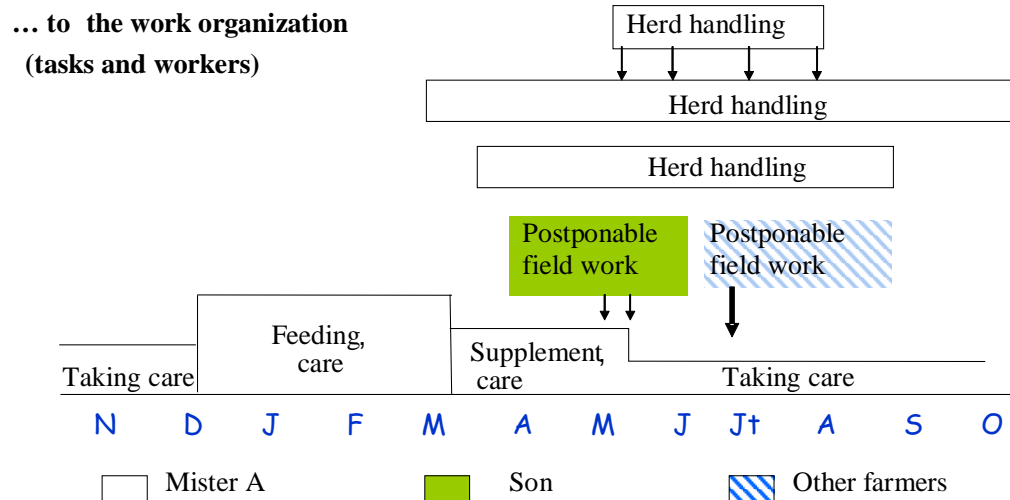
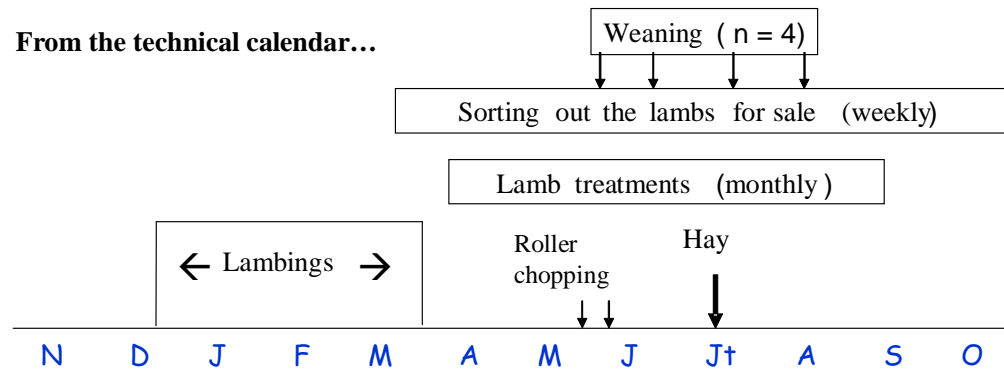


# LFS frameworks

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- Agricultural tasks differ : some are imperative, others can be postponed ; some are daily, others seasonal
- Different categories of workers, which are not interchangeable (organisers, volunteers, salarymen...)
- Work organisation is a combining of :  
[tasks (livestock management and equipment)] x [workers]  
x [temporalities (daily, seasonal , annual)] (Madelrieux and Dedieu 2008)

# From a technical calendar to work organisation



# Approaches and Methodologies

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- *Work Assessment Method* : quantifying durations linked to management of herds and lands (Dedieu et al. 1993)
- *Atelage* : qualifying work organisation as a system of activities [tasks, workers, temporal] (Madelrieux et al. 2008)
- *Quaework* : efficiency and flexibility of work organisation (Hostiou et Dedieu 2011)

# 3 « livestock management – work » models in R & Extension tools

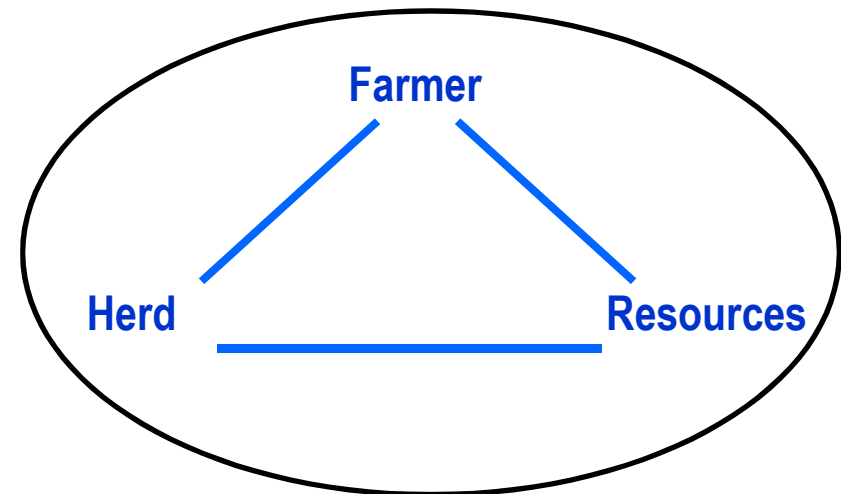
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- **Work as a resource**
- **Work as a complex system**
- **The subjective rationalities in work**

# 1. Work as a resource

- Farm as an entreprise : economic finality
- LFS (Gibon et al. 1999)

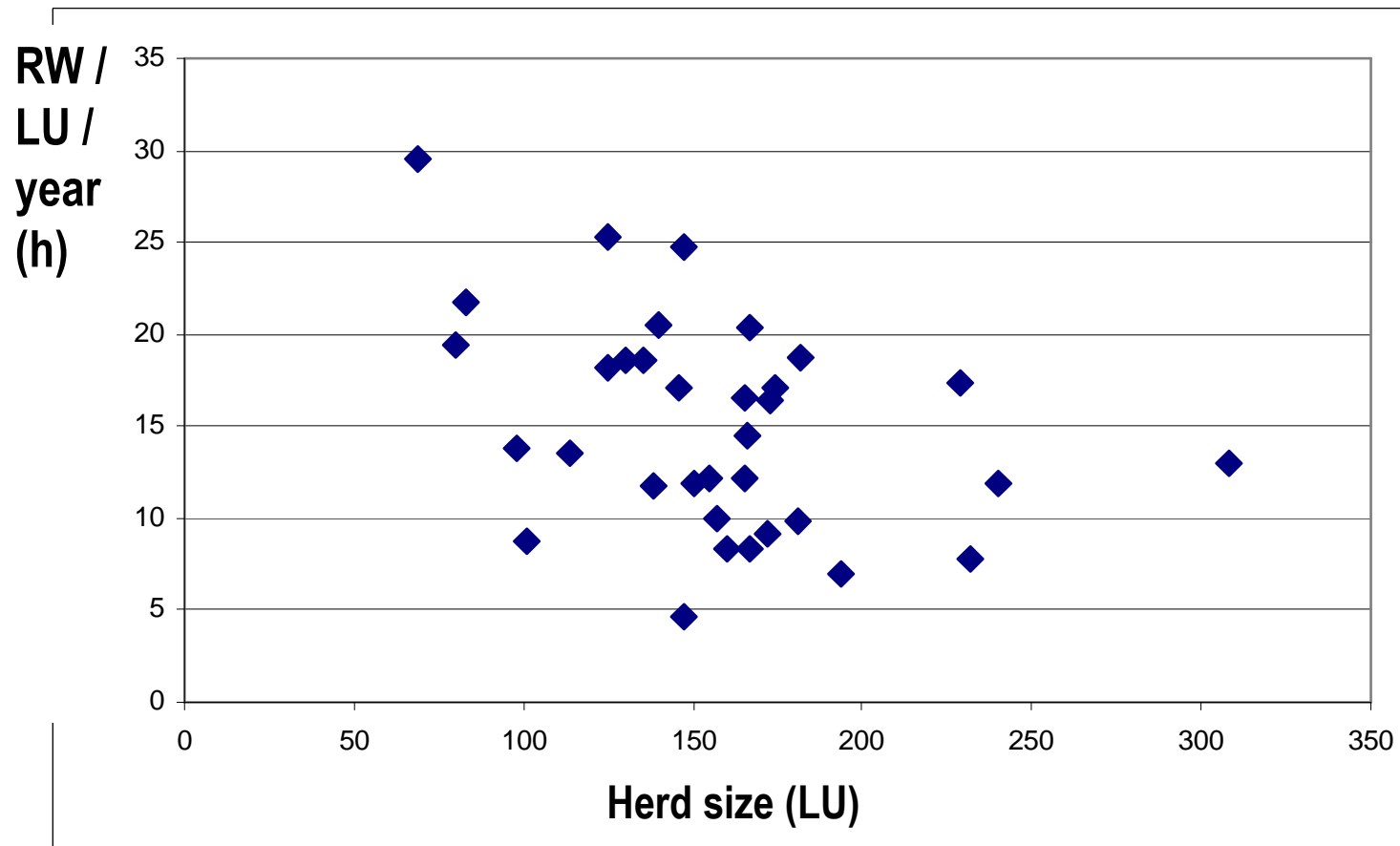
*Work is a resource to be optimised*



- Links with economy and management sciences :
  - work efficiency is at stake for competitiveness and income
  - duration ratios are good indicators

# Herd size and routine work (RW) per LU

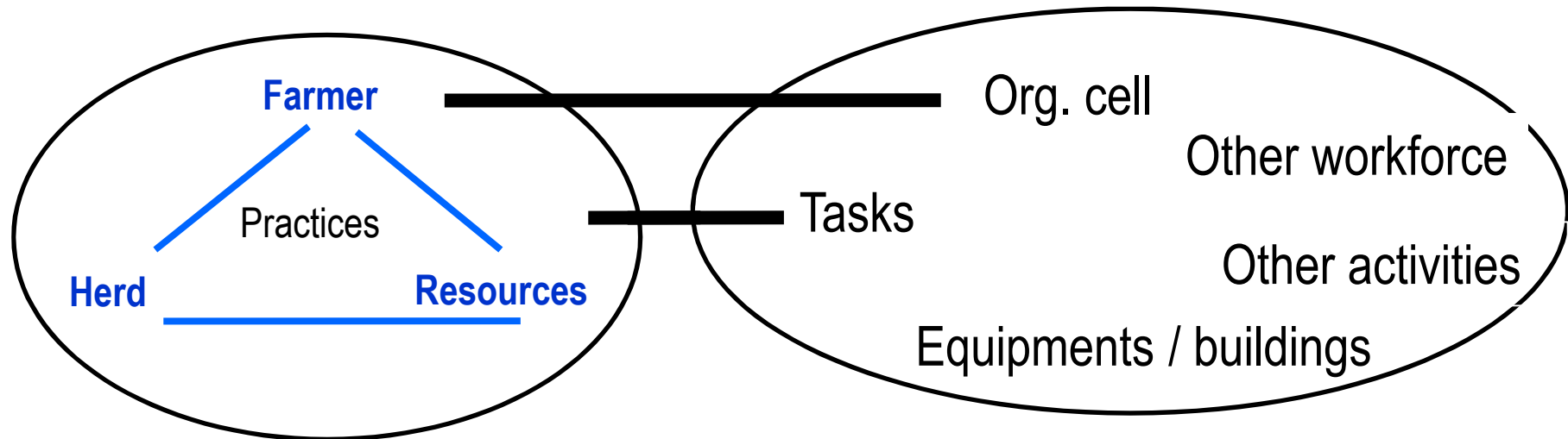
## Beef cattle farms



Cournut et al. 2009

## 2. Work as a complex system

- Farmer aims at quality of life (*liveability*) either
- LFS with a double consistency



Work organisation strategies : to be efficient + to cope with other activities either economics or social or free time

*Farmer « manager »* becomes the *work organisation cell* with different configurations (a single, couple, associates...) and wishes

# Work as a complex system

- Analyse
  - Understand work organisation strategies and livestock management part (a prescription, a lever)
  - evaluate rooms for manoeuvre, flexibility

## Diversity of organisational strategies

(2 Sheep farms, Center West of France, (700 ewes, one permanent worker)

**Farm A** : Simplified herd and land management (one mating season, batching based on the age, only permanent grass), no equipment, total delegation of seasonal work on land

**Farm B** : Sophisticated management (2 mating seasons, batching on physiological condition, crops ), equipments, autonomy in work

**Room for manoeuvre (h / y) A >> B ; Income A = B**



# 3. Subjective rationalities for working

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*Working : to produce food, to produce oneself*

- Psychosociology
- Man, subjectivity, reasons for working are central
- All workers (gender, farmers and salarymen)
- *Evaluation : tenses with real organisation ; pivot activities for personal satisfaction*
- *New grid of qualification of LFS : workers personal realisation*

# The five subjective rationalities in work

Example of a multiple job holding farmer (sheep-farming and earth-moving work)

Subjective Rationalities	Farmer's appreciations
Economical	An uncertain, unpredictable income, difficult to obtain ≠ earth-moving An income to repay property loans, not for the family"
Identity	The pride of heading such a large property after setting out with nothing The heady feeling of always undertaking more = earth-moving
Technical	Acquiring equipment to spend the least time possible on work : as it doesn't pay too much, better not spend too long on it
Relational	Working alone = earth-moving
Body commitment	Hard work ≠ earth-moving

(Fiorelli et al. 2007)

# Conclusion (1) : on LFS

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- Farmer : technical manager / work organisator / sensible worker
- His (her, their) goals : viability / liveability / self realisation
- Workforce : AWU ; organisators and others workers (to share, to securize, to delegate) ; individuals
- Livestock management : to reach profitability / as a lever of work organisation / a compromise for one's subjective realisation

# Conclusion (2) : linking these models of work

- To ameliorate existing situations (productivity, liveability)
- To redesign LFS and negotiate transitions sequences (changes in LFS consistency are changes in work , and may be concomitant to changes in labour (retirement, association...))
- To think in a systemic way innovative pathes of Livestock Farming development (precision livestock & industrial vs agroecology & family and all intermediate styles)