

Could organic and conventional hill dairy farms reach a food self-sufficiency after unsuitable climatic years?

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Aim of the study

to valuate the sensitivity of farms to climatic accidents

- **organic and conventional farms**
- **hill dairy farms**
- **grassland farming system**

the fodder self-sufficiency as indicator

several climatic accidents since the 2003 drought



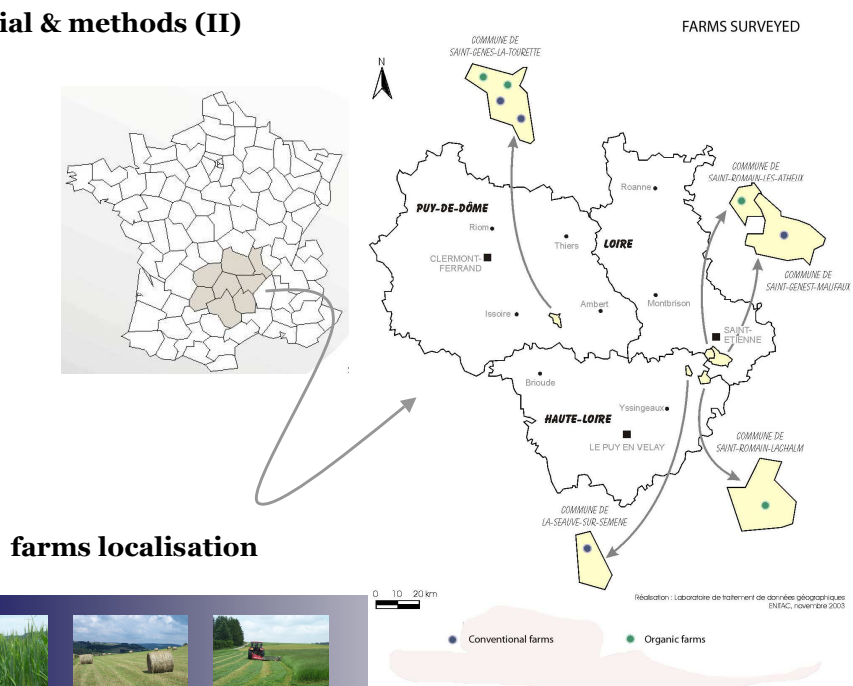
Material & methods (I)

8 farms surveyed (4 conventional & 4 organic)

- similar soil and climate conditions
- farms surveyed since 2000
- organic farms in organic production since 1998



Material & methods (II)



Material & methods (III)

characteristics of the two groups of farms

	Organic farms	Conventional farms
Useable farm area (ha)	53,1	59,3
% of grassland	88	87
% of crops	12	13
Stocking rate (LU ha ⁻¹)	1,03	1,19
Dairy cow LU ⁻¹ (%)	66	53
Milk per cow (L)	5 180	6 300
Milk per fodder area (L/ha)	3 500	4 500



Material & methods (IV)

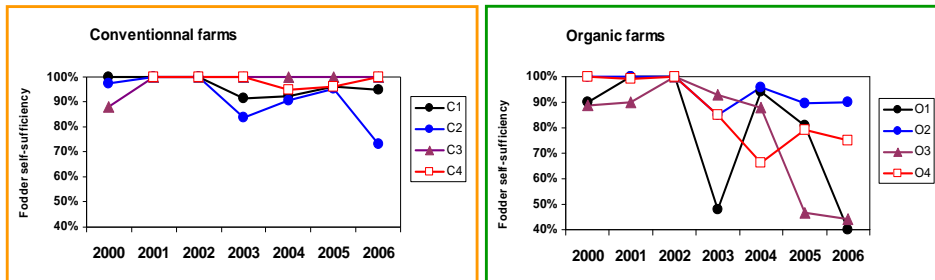
technical and economic data collected each year

- 3 or 4 visits per year
- to registrate farm operations concerning:
 - livestock management
 - field management
 - farm accounts



Results (I)

evolution of the fodder self-sufficiency



Results (II)

Conventional farms have developed strategies to adapt their fodder need to the resources:

- intensification of the milk production
- increase in the area of fodder maize
- stop of fattening unit
- stop of fodder selling



Results (III)

For the organic farms, only one of the conventional strategies can be developed:

- intensification of the milk production

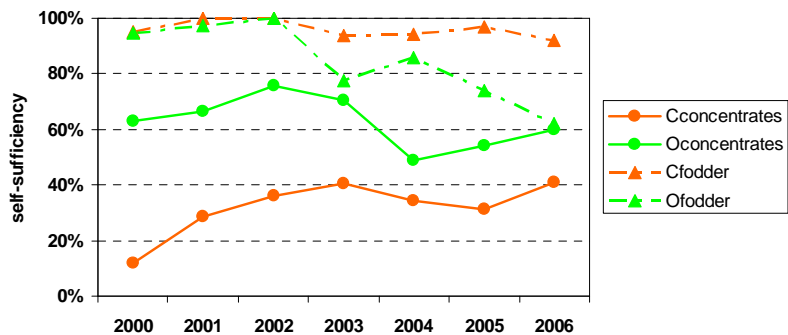
Organic farms have less opportunities than conventional farms

- and they did not try to cultivate other forage crops



Results (IV)

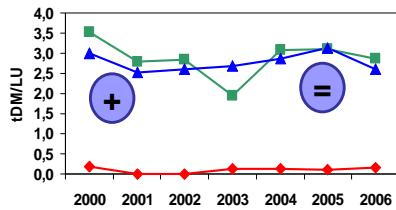
fodder and concentrate self-sufficiency



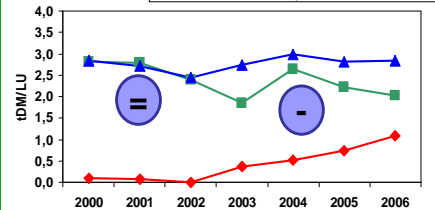
Results (V)

Existence and evolution of fodder supplies

conventional farms



organic farms



Conclusion

Organic farms are more sensitive when climatic accidents occur

Organic farms have less possibilities to develop alternative strategies

Wich change in organic farming systems?

