

# Can an organic market garden without motorization be viable through holistic thinking?

*The case of a permaculture farm*



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## A global challenge

Increasing scarcity, environmental and social costs of oil resources



## CONTEXT



## Local innovations

Permaculture practitioners claim to design viable market gardens without motorization by promoting manual labor and holistic thinking

## OUR QUESTION :

Can these market gardeners create a decent income with an acceptable level of working time ? How ?

## A CASE STUDY

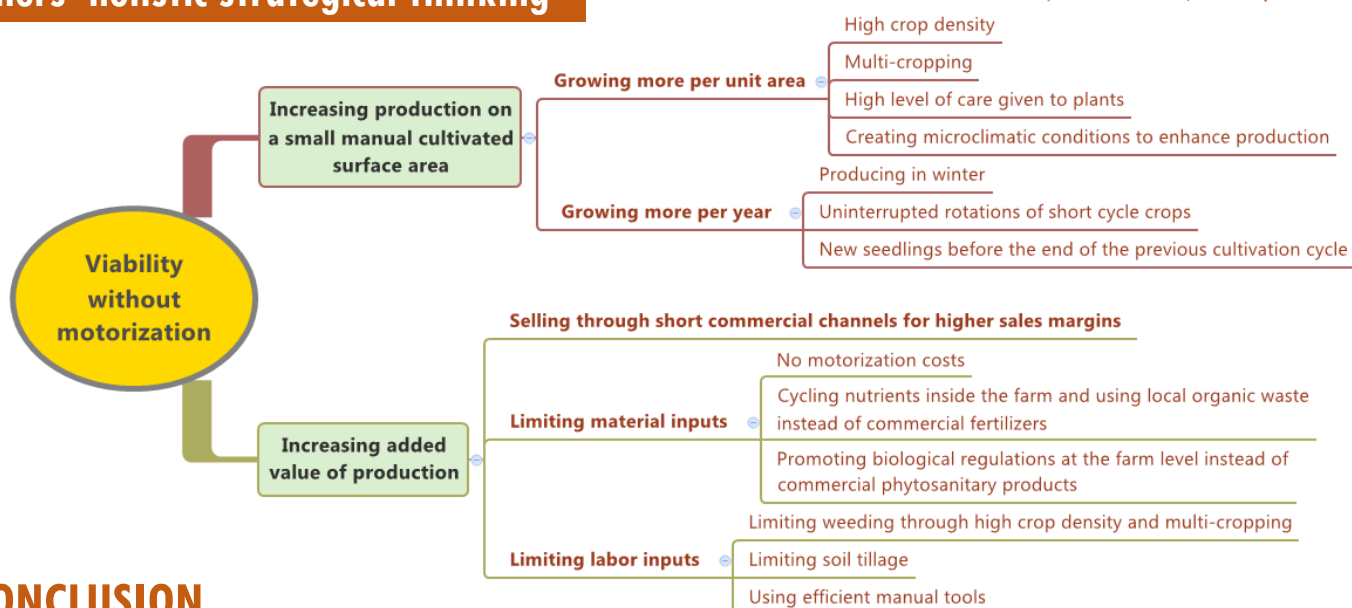
- On the Bec Hellouin farm (Normandy)
- Harvest quantities and production working time measured from 2012 to 2014 on 1061m<sup>2</sup> (40% under greenhouses, 76 vegetables types grown)
- Estimation of income and global working time based on farm data and accountancy expertise
- Qualitative analysis of semi-structured interviews to approach farmers' strategies

## Income (€) and working time

Year	2013		2014	
	Low	High	Low	High
<b>Investment hypothesis</b>				
<b>Net Gross sales*</b>	31 079		54 298	
- Seeds and young plants*	4 000		6 500	
- Fertilization, other supplies and small equipment*	1 500		3 000	
- Other purchases and expenses*	4 000	2 000	4 000	2 000
- Property tax	100			
- Labor cost (employee)	0	0	10 098	
- Social security charges and insurance	4 000			
<b>= Annual disposable income</b>	17 479	19 579	26 700	28 700
- Interest expenses (bank)	0	5 000	0	5 000
- Depreciation	2 000	4 000	2 000	4 000
<b>= Annual net income**</b>	15 479	10 579	24 700	19 700
<b>Monthly net income**</b>	<b>1 290</b>	<b>882</b>	<b>2 058</b>	<b>1 642</b>
<b>Farmer's weekly working time</b>	<b>43h/week</b> including administrative and commercial tasks			

\*excluding value-added tax; \*\* before personal taxes  
 Acceptable for farmers; Not acceptable for farmers

## Farmers' holistic strategical thinking



## CONCLUSION

Decent income and acceptable level of working time are possible on 1000m<sup>2</sup> cultivated without motorization thanks to a holistic way of thinking combining ecological, technical and commercial strategies. However, no conservation crops were grown (e.g. potatoes). As these crops are expected by consumers, collaboration between motorized and non-motorized market gardeners has to be further investigated.