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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

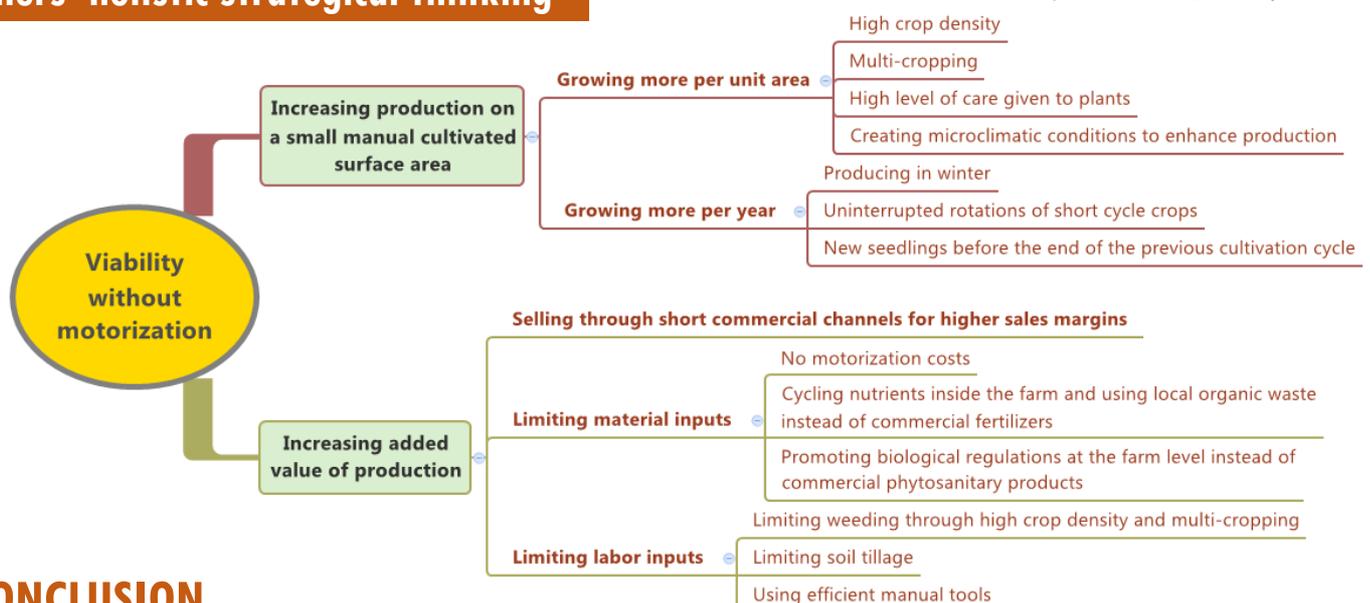
- On the Bec Hellouin farm (Normandy)
- Harvest quantities and production working time measured from 2012 to 2014 on 1061m² (40% under greenhouses, 76 vegetables types grown)
- Estimation of income and global working time based on farm data and accountancy expertise
- Qualitative analysis of semi-structured interviews to approach farmers' strategies

Income (€) and working time

Year	2013		2014	
	Low	High	Low	High
Investment hypothesis				
Net Gross sales*	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			
= Annual disposable income	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
= Annual net income**	15 479	10 579	24 700	19 700
Monthly net income**	1 290	882	2 058	1 642
Farmer's weekly working time	43h/week 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 1000m² 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.