

Will carrots and lettuces thrive in peri-urban wheat fields? Strategies, and needs to support horticultural diversification for large-scale cereal farmers Knowledge needed to support vegetable diversification of peri-urban cereal farmers

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Will carrots and lettuces thrive in peri-urban wheat fields? Strategies, and needs to support horticultural diversification for large-scale cereal farmers

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Knowledge needed to support vegetable diversification of peri-urban cereal farmers

Increasing urban demand for local vegetables: diversification of cereal farmers could be key for large-scale production

Lack of literature on diversification of cereal crops with vegetables

Research questions:

Drivers for cereal farmers to diversify?

Diversification strategies?

Challenges faced and supporting options?

An exploratory qualitative study in the Paris City-Region

Semi-structured interviews with a diversity of stakeholders:

- 11 farmers
- 5 agricultural advisors
- 3 local development associations
- 4 value chain actors (wholesalers, cooperatives, intermediaries)

Qualitative analysis with thematic coding to highlight strategic ideal-types

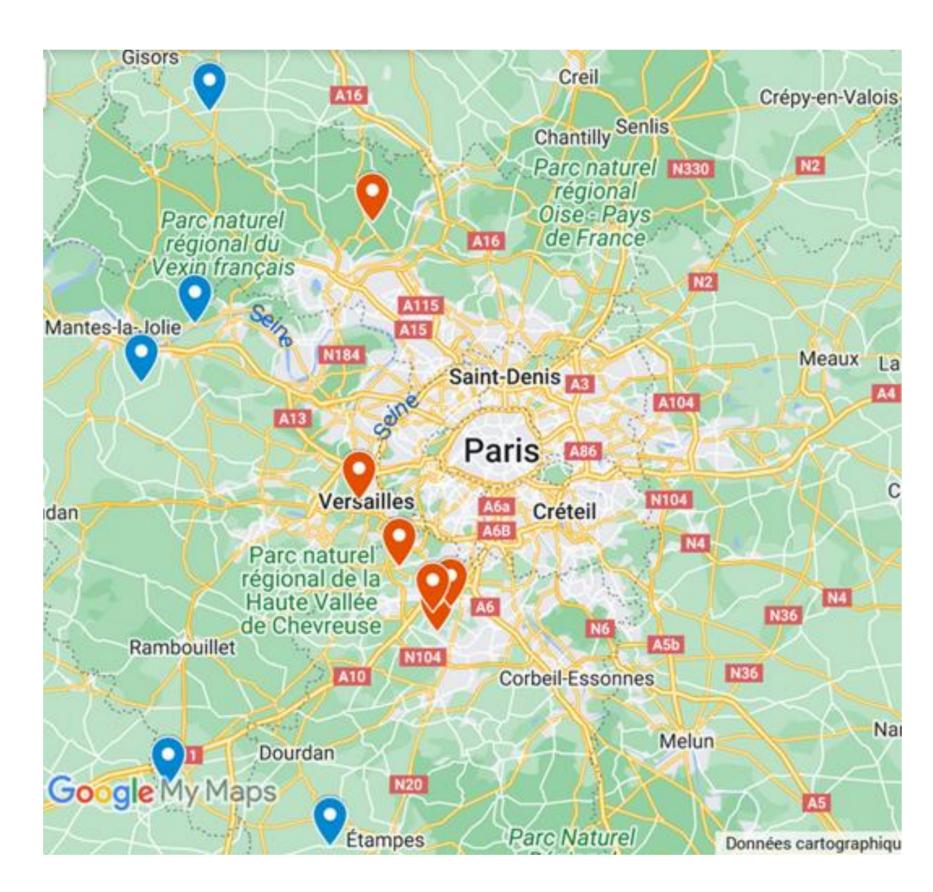


Fig. 1 studied farmers (blue: "field vegetable" strategy; red: "market-garden strategy")

Tab. 1 Characteristics of the farms (except 2)

A 35 210 20 Diversified (up to 70) B 26 70 9 Diversified (up to 70) C 30 264 1,5 Diversified (up to 70) D 40 27 0 Planned "diversified" E 55 400 15 Carrots F 63 315 15 Carrots, Turnips G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes	Farm	Distance to	UAA (ha)	Including	Vegetables
B 26 70 9 Diversified (up to 70) C 30 264 1,5 Diversified (up to 70) D 40 27 0 Planned "diversified" E 55 400 15 Carrots F 63 315 15 Carrots, Turnips G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes		Paris (km)		vegetables (ha)	
C 30 264 1,5 Diversified (up to 70) D 40 27 0 Planned "diversified" E 55 400 15 Carrots F 63 315 15 Carrots, Turnips G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes	A	35	210	20	Diversified (up to 70)
D 40 27 0 Planned "diversified" E 55 400 15 Carrots F 63 315 15 Carrots, Turnips G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes	В	26	70	9	Diversified (up to 70)
E 55 400 15 Carrots F 63 315 15 Carrots, Turnips G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes	C	30	264	1,5	Diversified (up to 70)
F6331515Carrots, TurnipsG533608Carrots, onions, leeks, squashesH711000Stopped courgettes	\mathbf{D}	40	27	0	Planned "diversified"
G 53 360 8 Carrots, onions, leeks, squashes H 71 100 0 Stopped courgettes	E	55	400	15	Carrots
H 71 100 0 Stopped courgettes	F	63	315	15	Carrots, Turnips
	G	53	360	8	Carrots, onions, leeks, squashes
I 64 172 90 French beans, onions	H	71	100	0	Stopped courgettes
, and a second of the second o	I	64	172	90	French beans, onions

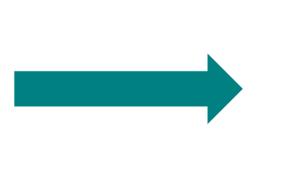
2 vegetable diversification strategies

Strategy	Market-garden	Field vegetables		
Drivers	Creating added-value; Resilience to economic hazards; Looking for new job			
	experience			
	Close to city; Familial heritage;	Further to city; Pioneers; Link to mass-		
Situation	Strong local demand	market retailing bringing opportunities;		
	Strong local demand	Already used to grow potatoes		
Range of	Diversified (up to 70) apart from	Limited (1 to 4) including in cereal rotation		
vegetables	cereal rotation			
N.C 1	Open-air markets; specialised	Wholesalers; Purchasing organisation for		
Marketing	shops; on farm	mass-market retailing		
Investment	Planting/sowing; Harvesting; Weeding	Same + storage and conditioning		
Tabana	Lining labour for frage	Hiring labour for packaging vegetables		
Labour	Hiring labour for frequent operations allo over the year	during periods with low cereal activity		
organisation		(winter)		
Knorrladaa	Esmilial lenguerladas	Empirical (trial and error); Seed breeders		
Knowledge	Familial knowledge	and agricultural extension		

Main barriers......ways to overcome them

Labour

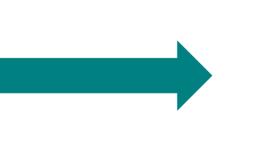
Difficulty to find and keep on long-term skilled labour (hard work, high living cost in urban areas)



Favouring access to housing attractivity, image

Marketing

Finding a diversity of appropriate and stable marketing channels



Support to link offer and demand

Phytosanitary issues

Lack of efficient solutions against pests and weeds, especially for conventional farmers



Alternative practices, (re)design, organic

Investment

Large investment required (tunnels, irrigation, storage and packaging)



Public subsidies

Perspectives

Which complementarities, tensions, spatial organization and logistics for different vegetable systems including cereal-based systems to locally feed cities?