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

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► **To cite this version:**

Kevin Morel, Hector Mussillon. 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. International Horticultural Congress, Aug 2022, Angers, France. . hal-03765977

HAL Id: hal-03765977

<https://hal.inrae.fr/hal-03765977>

Submitted on 31 Aug 2022

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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

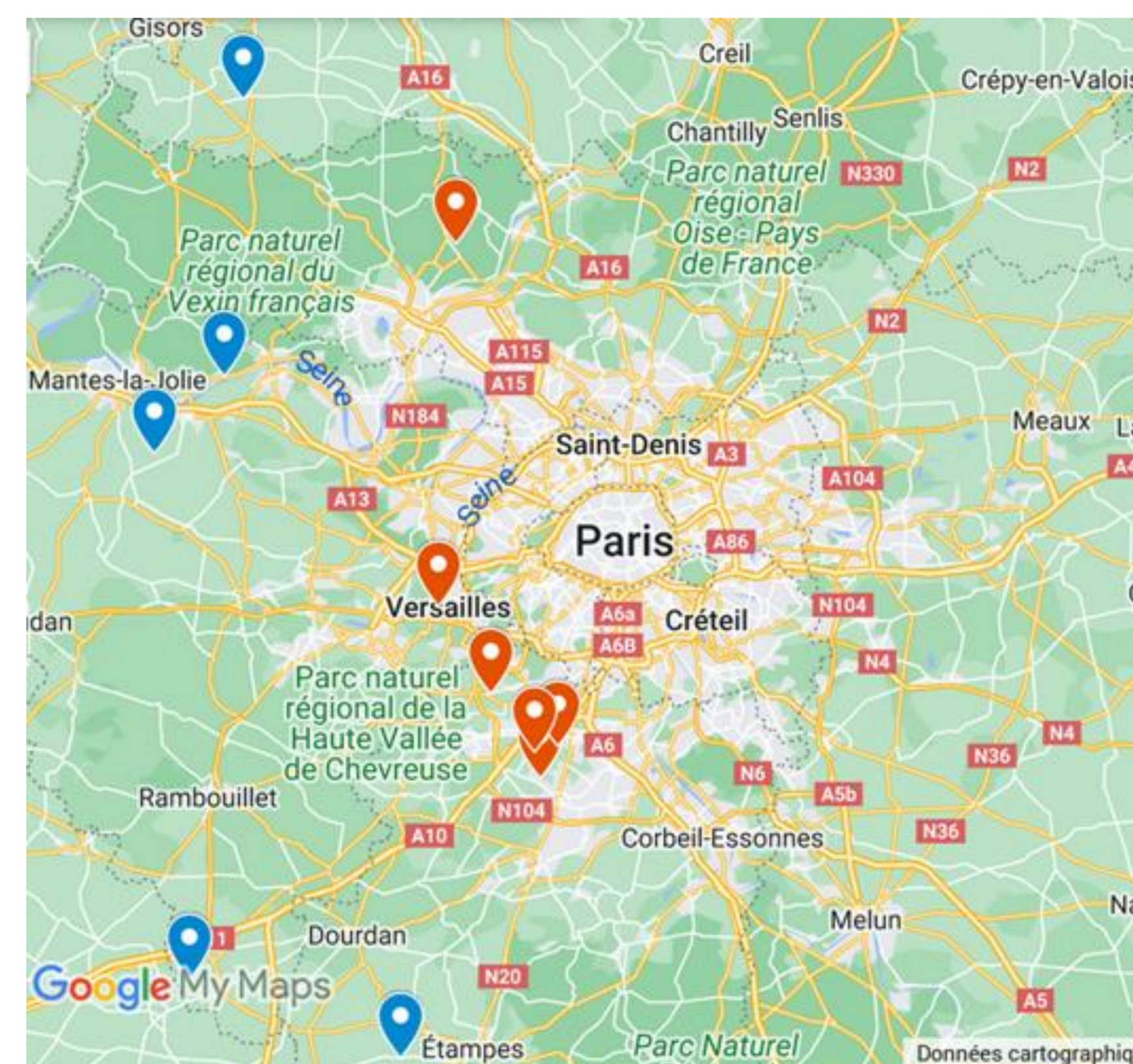


Fig. 1 studied farmers (blue: “field vegetable” strategy; red: “market-garden strategy”)

Tab. 1 Characteristics of the farms (except 2)

Farm	Distance to Paris (km)	UAA (ha)	Including vegetables (ha)	Vegetables
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
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	
Situation	Close to city; Familial heritage; Strong local demand	Further to city; Pioneers; Link to mass-market retailing bringing opportunities; Already used to grow potatoes
Range of vegetables	Diversified (up to 70) apart from cereal rotation	Limited (1 to 4) including in cereal rotation
Marketing	Open-air markets; specialised shops; on farm	Wholesalers; Purchasing organisation for mass-market retailing
Investment	Planting/sowing; Harvesting; Weeding	Same + storage and conditioning
Labour organisation	Hiring labour for frequent operations all over the year	Hiring labour for packaging vegetables during periods with low cereal activity (winter)
Knowledge	Familial knowledge	Empirical (trial and error) ; Seed breeders 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
Phytopathological 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 ?