

# From Home Food Production to Professional Farming

## The Social and Geographical Continuum of Urban Agriculture: Nineteenth-century Oudenaarde and Kortrijk, Belgium

*Abstract:* We explore the geographical and social continuum of food production in and around towns in nineteenth-century Belgium. We do so by using household-level data for two Flemish towns, Oudenaarde and Kortrijk, which allow us to reconstruct variation in agricultural activities depending on the location and profession of the households. We find a sharp distinction between households living in the town cores and those living outside the agglomeration, as well as between those reporting agricultural and non-agricultural professions. Outside the town walls, production strategies differed little from the surrounding countryside. In contrast, the focus in the urban cores was on high-yielding vegetables and potatoes, and on specific livestock production. Only a small minority of ca. 10 per cent of urban households occupied agricultural land. Those who did were able to cover much of their subsistence needs for vegetables and potatoes, but not for cereals.

*Key Words:* urban agriculture, social property relations, allotments, gardens, markets, Thünen

Our daily caloric intake and hence our food security depend to a great extent on a food regime characterised by worldwide trade in a select number of key agricultural products.<sup>1</sup> This food regime of globalisation and specialisation has freed a large share of the world population from undernourishment and lowered poverty levels. Yet, this food system is not without problems. The large number of ‘food miles’, problems of soil fertility mining in peripheral regions, and over-fertilisation in core areas compromise the ecological sustainability of agriculture. In addition, high volatility in incomes following trade liberalisation and the dismantling of price-supporting policies severely affects its economic sustainability.<sup>2</sup>

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- 1 On the concept and historical background of food regimes: Harriet Friedmann/Philip McMichael, *Agriculture and the state system: the rise and decline of national agricultures, 1870 to the present*, in: *Sociologica Ruralis* 29/2 (1989), 93–117; Henry Bernstein, *Agrarian political economy and modern world capitalism: the contributions of food regime analysis*, in: *The Journal of Peasant Studies* 43/3 (2016), 611–647.
- 2 Robert Bailey/Laura Wellesley, *Chokepoints and vulnerabilities in global food trade* (Chatham House Report), London, June 2017, <https://www.chathamhouse.org/publication/chokepoints-vulnerabilities-global-food-trade>

Consequently, a growing number of scholars and policy think tanks have started looking for alternatives. In meeting local food demand by local food production, the potential of urban and peri-urban agriculture comes to the front as part of the solution. Whereas initiatives to revitalise allotment gardening were until recently often geared towards leisure and community-building purposes,<sup>3</sup> nowadays discourse on urban farming is shifting toward issues of the sustainability and resilience of food production and access to food, both in the global south and north. This concerns both home food gardens and alternative revenue models for urban farmers, such as community-supported agriculture and direct marketing at the farm gate or at nearby farmers' markets.<sup>4</sup>

In a recent literature review, Ruth Glasser observed that history is largely absent from the debate on urban agriculture, attributing this neglect to the misguided idea that the extent of food production within cities was marginal and that it was incompatible with modern conceptions of urbanity. Against this misperception, Glasser pointed out that farming in cities remained important into the twentieth century in the Northeast of the US.<sup>5</sup> Also in Western Europe, food production was a common feature in and close to cities until industrialisation and modernisation gradually dissociated farming from city life.<sup>6</sup> In the medieval and early modern periods, when long-distance transport was much more of a constraint for the supply of quickly perishable dairy and horticultural products than today, producing these goods locally was imperative. According to Peter Atkins, urban agriculture continued to play this role in the nineteenth century until railway transportation facilitated the supply of rural milk and vegetables.<sup>7</sup> Agricultural historians, too, have tended to neglect urban farming.

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(last visited 8 Aug. 2019); Jason Moore, Environmental crises and the metabolic rift in world-historical perspective, in: *Organization and Environment* 13/2 (2000), 123–157.

- 3 E.g. Jonathan Kingsley/Mardie Townsend, 'Dig in' to social capital: community gardens as mechanisms for growing urban social connectedness, in: *Urban Policy and Research* 24/4 (2006), 525–537; Leigh Holland, Diversity and connections in community gardens: a contribution to local sustainability, in: *Local Environment* 9/3 (2004), 285–305; see also Stephanie Rogus/Carolyn Dimitri, Agriculture in urban and peri-urban areas in the United States: highlights from the census of agriculture, in: *Renewable Agriculture and Food Systems* 30/1 (2014), 64–78, 64.
- 4 Among others, see Nathan McClintock, Why farm the city? Theorizing urban agriculture through a lens of metabolic rift, in: *Cambridge Journal of Regions, Economy and Society* 3/2 (2010), 191–207, 191; John R. Taylor/Sarah Taylor Lovell, Urban home food gardens in the Global North. Research traditions and future directions, in: *Agriculture and Human Values* 31/2 (2014), 285–305; Joe Smith/Tomáš Kostelecký/Petr Jehlička, Quietly does it: questioning assumptions about class, sustainability and consumption, in: *Geoforum* 67/10 (2015), 223–332; Adrian Atkinson, Readjusting to reality: urban and peri-urban agriculture to ease the downward passage, in: *City* 17/1 (2013), 85–96; Susan Parham, *Food and urbanism: the convivial city and a sustainable future*, London 2015.
- 5 Ruth Glasser, The farm *in* the city *in* the recent past. Thoughts on a more inclusive urban historiography, in: *Journal of Urban History* 44/3 (2018), 501–518.
- 6 Gina Castillo, Livelihoods and the city: an overview of the emergence of agriculture in urban spaces, in: *Progress in Development Studies* 3/4 (2003), 339–344, 339–340.
- 7 On medieval French cities, see Jean-Pierre Leguay, *Terres urbaines. Places, jardins et terres incultes dans la ville au Moyen Âge*, Rennes 2009, and on early modern Paris, see Clément Gurvil, *Les paysans de Paris du milieu du XV<sup>e</sup> au début du XVII<sup>e</sup> siècle*, Paris 2010. However, Daniel Liévois has qualified this argument by showing that fruit travelled sometimes more than 20 kilometres before reaching the fruit market in Ghent, and this as early as the fourteenth and fifteenth centuries, Daniel Lievois, Fruit en fruitverkopers in Gent (1357–1542), in: *Handelingen der Maatschappij voor Geschiedenis en Oudheidkunde te Gent* 60 (2006), 75–144; Peter J. Atkins, Is it urban? The relationship between food production and urban space in Britain, 1800–1950, in: Marjatta

While shifting their attention to an integrated analysis of the so-called ‘agro-food-chain’ from production to consumption, they still mainly focus on rural farming, its social organisation, and its interaction with urban food demand and surplus extraction by (urban) landowners, leaving urban agriculture aside.<sup>8</sup>

Too strict a division of labour between urban historians on the one hand, and rural and agricultural historians on the other, risks perpetuating the neglect of urban farming, as the historical division of labour between the city and the countryside was less strict. Historians addressing urban agriculture and food provisioning, moving beyond the assumption of a sharp divide, instead emphasise the geographical continuum between rural and urban spaces. Arguing against the “widely held idea that the modern city entailed a sharp distinction between town and countryside”, Baics and Thelle recently pointed out that “with accelerating urbanization, the two spheres intertwined ever more”, as “[c]ities had to tap into expanding hinterlands to sustain their rapidly growing populations.”<sup>9</sup> In addition, Glasser not only intends to “erase some of the false geographic dichotomy between what is a city and what is its hinterland”, but also to “question the boundaries between farming, market gardening, and subsistence food-raised strategies, arguing that they too have taken place along a continuum within cities.”<sup>10</sup>

Our goal in this paper is to look at this double, i.e. geographical and social, continuum. Regarding the geographical continuum, we question to what extent agricultural production in and near cities differed from that in the countryside. Agricultural location and bid rent theories often associate agriculture close to cities with specialisation in quickly perishable fruit, vegetables and dairy. Inspired by von Thünen and Boserup, they attribute specialisation in these products to the proximity of urban demand and to the competition for land by the housing market and the industry and service sectors.<sup>11</sup> Studies in urban agriculture indeed tend to focus on high-yield dairying or horticultural production (in both market gardens and home food gardens). They acknowledge that the theoretical model of the ‘ideal city’ was

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Hietala/Tanja Vahtikari (eds.), *The landscape of food: the food relationship of town and country in modern times*, Helsinki 2003, 133–144.

8 Alexander Nützenadel/Frank Trentmann (eds.), *Food and globalization. Consumption, markets and politics in the modern world*, London/Oxford 2008; Leen Van Molle/Yves Segers (eds.), *The agro-food market: production, distribution and consumption (Rural economy and society in north-western Europe, 500–2000)*, Turnhout 2013; noticeable exceptions for Belgium: Yves Segers/Leen Van Molle, *Workers’ gardens and urban agriculture. The Belgian allotment movement within a global perspective (from the nineteenth to the twenty-first century)*, in: *Zeitschrift für Agrargeschichte und Agrarsoziologie* 62/2 (2014), 80–94, and the preliminary research on eighteenth-century urban farming in Alost by Reinoud Vermoesen, *Boerende stedelingen of verstedelijkte boeren. Een verkennend onderzoek naar Urban farming in vroegmodern Antwerpen*, in: *Tijdschrift voor geschiedenis* 128/4 (2015), 533–553.

9 Gergely Baics/Mikkel Thelle, *Introduction: meat and the nineteenth-century city*, in: *Urban History* 45/2 (2018), 184–192, 185.

10 Glasser, *The Farm in the City*, 503.

11 As observed in nineteenth-century Westphalian agriculture, see Michael Kopsidis/Nikolaus Wolf, *Agricultural productivity across Prussia during the Industrial Revolution: a Thünen perspective*, in: *The journal of Economic History* 72/3 (2012), 634–670; Michael Kopsidis, *Northwest Germany, 1750–2000*, in: Erik Thoen/Tim Soens (eds.), *Struggling with the environment: land use and productivity (Rural economy and society in north-western Europe, 500–2000)*, Turnhout 2015, 356–357; Parham, *Food and urbanism*, 189–192. For a qualification of this model with nineteenth-century London as a case study, see Peter J. Atkins, *The charmed circle: von Thünen and agriculture around nineteenth century London*, in: *Geography* 72/2 (1987), 129–139.

distorted in practice by transport arteries (rivers, canals, high-quality paved roads) or soil type differences.<sup>12</sup> However, in most cases they do not refer to the social aspects of farming: the sizes of holdings or the place of these specialised products within the whole range of agricultural goods these urban households produced.<sup>13</sup> Yet rural historiography teaches us that the type of farming strongly depended on its social organisation, inviting us to study access to land and its distribution, the social property relations and the cropping patterns of the various social groups involved in urban agriculture.<sup>14</sup> The agricultural aims of these various social groups could range from merely relieving their family budget by growing foodstuffs in backyard gardens (home food growers), to commercialising a substantial part of their produce (commercial city farmers). Which of these two aims households followed depended on how much land they had access to. In turn, this also affected crop choice.

To study food production by different social groups in a nineteenth-century urban environment, we have selected two Belgian towns, Oudenaarde and Kortrijk. Both are located in the same agricultural region of inland Flanders. For both places, we have micro-level data allowing us to situate people involved in agriculture geographically (by location of residence) and socially (by profession). We use these data to gain insight into the basic characteristics of the urban agricultural economy by considering, firstly, the whole social continuum of urban food producers: commercially involved urban farmers, urban households combining farming with other activities such as proto-industry, and families having access to a home food garden for self-provisioning purposes. Secondly, we consider the geographical continuum, from producers living in the rural fringe to those in the inner town. Did producers close to the inner town indeed face constraints in access to land, i.e. were holdings smaller in the urban centres? Which of these producers specialised in food items benefitting from close proximity to urban markets, and which of them focused mainly on subsistence?

In a first section of this article, we introduce the two towns and the rural environment in which they were located, as well as the sources used for this paper. In the two following sections, we consider differences in access to land and in production choices by location and by profession. In the final section, we estimate to what extent urban households' food production was enough for their own requirements.

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12 Michael Limberger, *Sixteenth-century Antwerp and its rural surroundings. Social and economic changes in the hinterland of a commercial metropolis (ca. 1450–ca. 1570)*, Turnhout 2008; Kopsidis/Wolf, *Agricultural productivity*, 643–644.

13 E.g. Atkins, *Is it urban?*; Jan Broadway, *Gloucester gardeners 1650–1763*, in: *Transactions of the Bristol and Gloucestershire Archaeological Society* 131 (2013), 209–220; G. Stanhill, *An urban agro-ecosystem: the example of nineteenth-century Paris*, in: *Agro-ecosystems* 3 (1976), 269–284. Studying the eighteenth-century small Flemish city of Alost, Vermoesen demonstrates that cereal cultivation figured in the rotation scheme of urban commercial farming, Vermoesen, *Boerende stedelingen of verstedelijkte boeren*, 533–553.

14 Recently summarised in the four volumes *Rural economy and society* and especially highlighted by Erik Thoen/Tim Soens, *Contextualizing 1500 years of agricultural productivity and land use in the North Sea area. Regionally divergent paths towards the world top*, in: Thoen/Soens (eds.), *Struggling with the environment*, 455–499; Bas van Bavel/Richard Hoyle, *Introduction: social relations, property and power in the North Sea area, 500–2000*, in: Bas van Bavel/Richard Hoyle (eds.), *Social relations: property and power (Rural economy and society in north-western Europe, 500–2000)*, Turnhout 2010, 1–23.

# Kortrijk and Oudenaarde in nineteenth-century inland Flanders

Following Scott and Storper, we consider urban settlements as concentrations or agglomerations of people and economic activities, interacting with each other as well as with other settlements. In their view, “urban or proto-urban places” are historically formed by the congregation of “a cohort of non-agricultural consumers” that can be maintained “when the

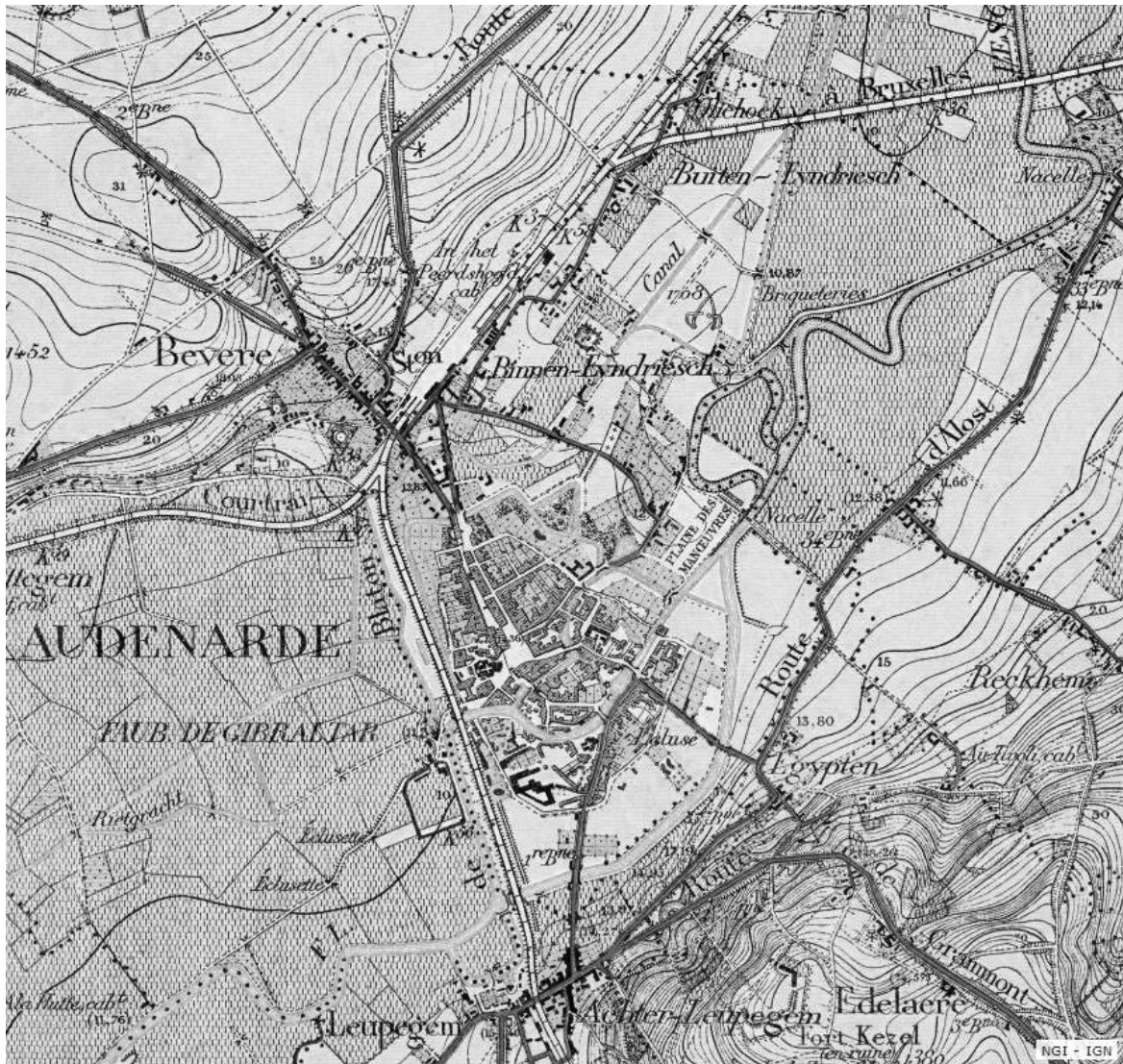
Figure 1: Topographic map of Kortrijk, ca. 1850



Source: Royal Library of Belgium, Etablissement géographique de Bruxelles fondé par Ph. Vander Maelen (ed.), Courtray, 1:20.000 (1849–1884), [www.cartesius.be](http://www.cartesius.be).

countryside generates an excess of production over subsistence needs<sup>15</sup>. The lower threshold of this agglomeration, in terms of number of people or population density, is left open for debate. This agglomeration gives rise to what they call the urban land nexus, the dynamic and interactive allocation of urban space among the productive (economic), social (residential), and circulatory (transportation) functions of cities and towns. Implicitly, Scott and Storper consider that land use for food production had only a marginal place in the urban land nexus.

Figure 2: Topographic map of Oudenaarde, 1884



Source: National Geographic Institute (ed.), Topographic map of Belgium at the scale of 1:20.000: Audenarde XXIX/4 (1884), ([www.cartesius.be](http://www.cartesius.be)).

Based on these criteria, Oudenaarde and Kortrijk both qualify as urban areas in the middle of the nineteenth century. Firstly, each of the two towns mainly consisted of a densely populated

15 Allen J. Scott/Michael Storper, The nature of cities: the scope and limits of urban theory, in: International Journal of Urban and Regional Research 39/1 (2015), 1–15, 4.

urban core surrounded by walls. According to the 1846 population census, the urban centres of Oudenaarde and Kortrijk numbered 5,551 and 19,177 inhabitants respectively. Both towns also had jurisdiction over a territory outside their walls, where far fewer people lived: 356 in Oudenaarde and 2,394 in Kortrijk.<sup>16</sup> In Oudenaarde in the mid-1830s, population density in the urban core exceeded 10,500 inhabitants per km<sup>2</sup>, while outside its walls this ratio came to slightly more than 300 per km<sup>2</sup>.<sup>17</sup> Presumably, similar proportions applied in Kortrijk. While Kortrijk was considerably larger in area,<sup>18</sup> the two towns had a similar morphology, with a compact and densely built-up inner core. In other words, both places consisted of dense agglomerations which clearly stood out from the surrounding countryside.

Secondly, the two towns relied on surpluses of basic food produced in the surrounding countryside, although the output of urban farming was not negligible, as this paper will show. Oudenaarde and Kortrijk were both market towns where farming households sold food and other agricultural products. An enquiry of 1820 indicated the villages in a wide circle around the two towns as the main source of cereals for their markets.<sup>19</sup> In Oudenaarde, market supplies of cereals were just enough to feed the inhabitants.<sup>20</sup> In Kortrijk, the market satisfied only about half the demand,<sup>21</sup> suggesting that the town's bakers also had other sources of supply. Farming households from the surrounding countryside, by focusing on food production, pursued commercial and subsistence strategies simultaneously.<sup>22</sup> Around the middle of the nineteenth century, Belgium was already dependent on cereal imports, but the volume of imports was still modest compared to the period after 1870, when massive imports of foreign cereals shifted the orientation of agricultural production towards livestock farming and the cultivation of potatoes, vegetables and industrial crops.<sup>23</sup>

Thirdly and finally, Kortrijk and Oudenaarde had been nodes in the network of Flemish towns already since the middle ages.<sup>24</sup> In the nineteenth century, they were part of the connection between the surrounding countryside and smaller marketplaces, in one direction, and larger cities and international markets, in the other.

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16 Ministère de l'Intérieur (ed.), *Population. Recensement général (15 octobre 1846)*, Première partie, Bruxelles 1849, 31, 52.

17 Wouter Ronsijn, *De moeilijke jaren 1840 in Oudenaarde*, unpublished licentiate thesis, Ghent University 2004, 32–33.

18 Ministère des Finances (ed.), *Statistique territoriale du Royaume de Belgique, basée sur les résultats des opérations cadastrales exécutées jusqu'à la fin de 1834*, Première publication, Bruxelles 1839, 69, 101.

19 Provincial Archives West Flanders, 1815–1830, 1st series, 440 (341b); Public Records Office Ghent, Province East Flanders Dutch period, 800.

20 Wouter Ronsijn, *Commerce and the countryside. The rural population's involvement in the commodity market in Flanders, 1750–1910*, Ghent 2014, 177–181.

21 Isabelle Devos, *Prijzen van Granen en andere Landbouwprodukten in de Kasselrij Kortrijk (16de–19de eeuw)*, unpublished licentiate thesis, Ghent University 1990, 102–103.

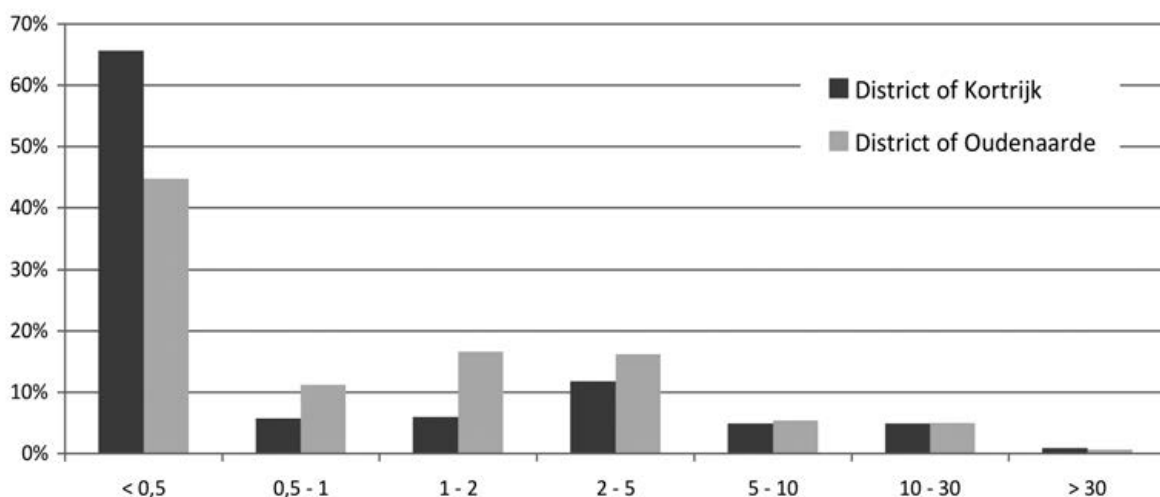
22 Ronsijn, *Commerce and the countryside*, 323–330.

23 Wouter Ronsijn/Eric Vanhaute, *From the hungry 1840s to the dear 1850s: the case of Belgium's food price crisis, 1853–56*, in: *Agricultural History Review* 66/2 (2018), 238–260; Pieter de Graef, *The resilient urban peasant?*, Paper presented at ESEH conference in Zagreb 2017; Phil Kint, *Prometheus aangevuurd door Demeter. De economische ontwikkeling van de landbouw in Oost-Vlaanderen 1815–1850*, Amsterdam 1989; Ronsijn, *Commerce and the countryside*; Jan Blomme, *The economic development of Belgian agriculture: 1880–1980. A quantitative and qualitative Analysis*, Leuven 1993.

24 Peter Stabel, *Dwarfs among giants: the Flemish urban network in the late Middle Ages*, Leuven 1997.

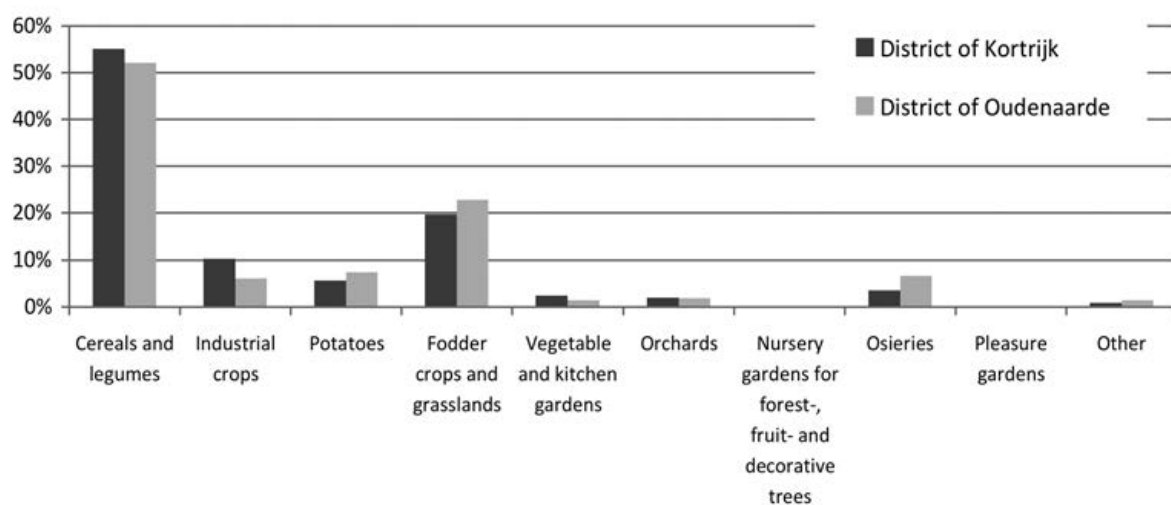
The countryside surrounding the towns of Oudenaarde and Kortrijk was structured by the smallholding economy of inland Flanders. This was characterised by a mass of smallholdings (rarely exceeding 2 hectares) alongside a small number of economically dominant large holdings (above 10 hectares). According to the 1846 agricultural census, about half of all holdings were smaller than 0.5 hectares (see Figure 3). All holdings conducted mixed farming, and households with smaller holdings also combined agrarian with non-agrarian activities (proto-industry). About 50 per cent of the area under cultivation in the countryside was used to produce cereals. The rest was devoted to fodder crops and grasslands (about 20

Figure 3: Distribution of holdings by size in the districts of Kortrijk and Oudenaarde, 1846



Source: LOKSTAT-POPPKAD (Historical Database of Local and Cadastral Statistics), Ghent University, Quetelet Center for Quantitative Historical Research (1846 agricultural census).

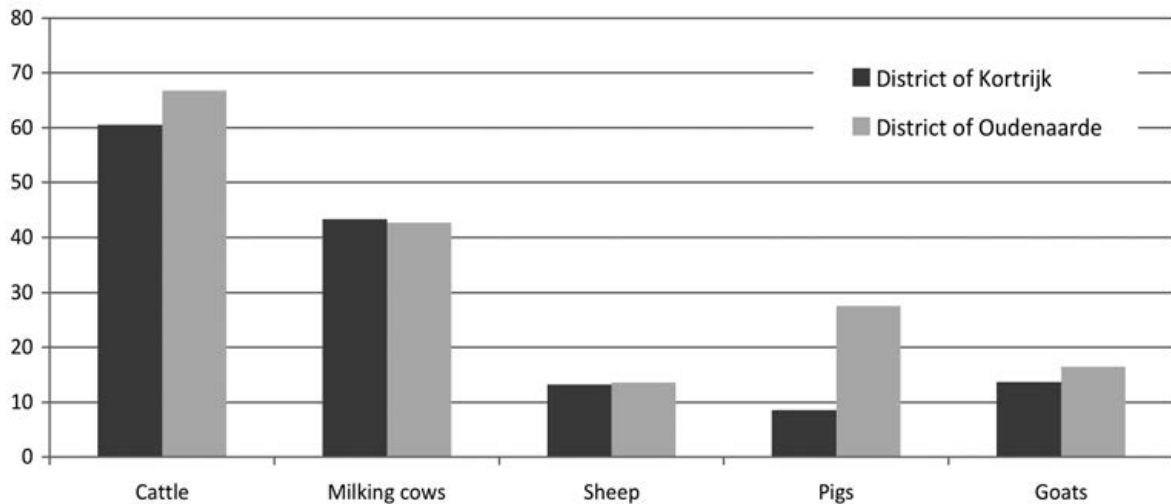
Figure 4: Agricultural production in the districts of Kortrijk and Oudenaarde, 1846 (distribution of crops over the total agricultural area)



Source: LOKSTAT-POPPKAD (1846 agricultural census).



Figure 5: Livestock in the districts of Kortrijk and Oudenaarde, 1846 (numbers of livestock per 100 hectares of agricultural land; “cattle” includes milking cows)



Source: LOKSTAT-POPPKAD (1846 agricultural census).

per cent), and industrial crops and potatoes (about 5 to 10 per cent each) (see Figure 4). Livestock mainly consisted of cattle (mostly milking cows), with the district of Oudenaarde also counting large numbers of pigs (see Figure 5).

The published agricultural census results for the towns of Oudenaarde and Kortrijk also include the inhabitants living in the territory within their jurisdiction outside the urban core. For this reason, they are not precise enough to inform us about urban farming specifically. However, for both towns we have sources permitting such a unique access to the household level. For Kortrijk, a local tax list from 1847 is available, indicating how much land, if any, each inhabitant cultivated. For Oudenaarde, there are the original, individual forms of the 1880 agricultural census, meticulously reporting the agricultural production of households in the town.<sup>25</sup> By linking these sources to the population registers of the towns in the respective years, we were able to determine the profession and place of residence of each head of household. It thus becomes possible to reveal which social groups were involved in food production, to find out the size of their holdings, the distribution of land between these various groups, their places of residence, and – for Oudenaarde in particular – look into social property relations, the type of crops they grew, and the type and number of animals they reared. Though the two micro-level case studies are approximately thirty years apart, the analyses for both cities reflect their ‘rural economy’ before the substantial change at the end of the nineteenth century.

There are 492 people on Kortrijk’s 1847 tax list, a figure which is very close to the 544 holdings registered in the 1846 agricultural census. Of these 492 people, 342 (70 per cent) could

25 City Archives Kortrijk (further CAK), MSAK, no. 1026, Rôles pour le recouvrement de la taxe provinciale destinée à former une caisse d’assurance agricole 1847; City Archives Oudenaarde (further CAO), Modern archive, OUD 711:201.4-53 Landbouwtelling 1880, Persoonlijk Bulletin (Bulletin no. 1) and 711:201.4-54 Landbouwtelling 1880, Aanvullend bulletin.

be identified in the population register with sufficient confidence. From Oudenaarde's 1880 agricultural census, we have the forms of 178 households. This is a much larger number than the 95 holdings recorded in the 1846 agricultural census. In the intervening years, the number of holdings undoubtedly rose, as much of the land initially covered by fortifications was converted into gardens in the 1860s. A large area of Oudenaarde had been taken up by military fortifications, which in 1834 covered 67 hectares.<sup>26</sup> Their subsequent removal greatly enlarged the urban open space. Given the town's demographic stagnation (the population dropped by about 10 per cent between 1856 and 1866<sup>27</sup>), and the consequent lack of demand for residential space, garden plots were created on a notable part of the newly available ground. Of the 178 households in the 1880 agricultural census, 133 (75 per cent) could be identified in the population register. Since the Belgian agricultural censuses in principle covered all holdings, even when they were very small and only used for household consumption, our data should provide us with an inclusive overview of holding sizes, cropping patterns, and livestock ratios. They also inform us about the population that did not cultivate a holding. In 1846, 88 per cent of all households in Kortrijk and 92 per cent of all households in Oudenaarde (including those living outside the urban core) did not have access to land for farming or home food growing. By 1880, the proportion of landless households in Oudenaarde had dropped slightly, to 86 per cent.<sup>28</sup>

From the bird's-eye view that the published census results provide, our household-level data allow us to switch to a worm's-eye view of farming in an urban environment. By combining the tax and census data with population registers, we can consider different parts of the towns separately, depicted schematically in Figure 6. In Kortrijk, we distinguish the 'inner town' from the 'close neighbourhoods' (bordering the inner town) and the 'fringe zone' (not bordering the inner town). In Oudenaarde, there was only the inner town and the fringe (called the *Eindries*). The inner town of Oudenaarde was cut in half by the Scheldt river, separating the Walburga parish from the Pamele parish. Walburga was the administrative centre of the town, where the town hall and market square were located. This distinction we use to reveal how and to what extent urban farming differed from farming in the countryside.

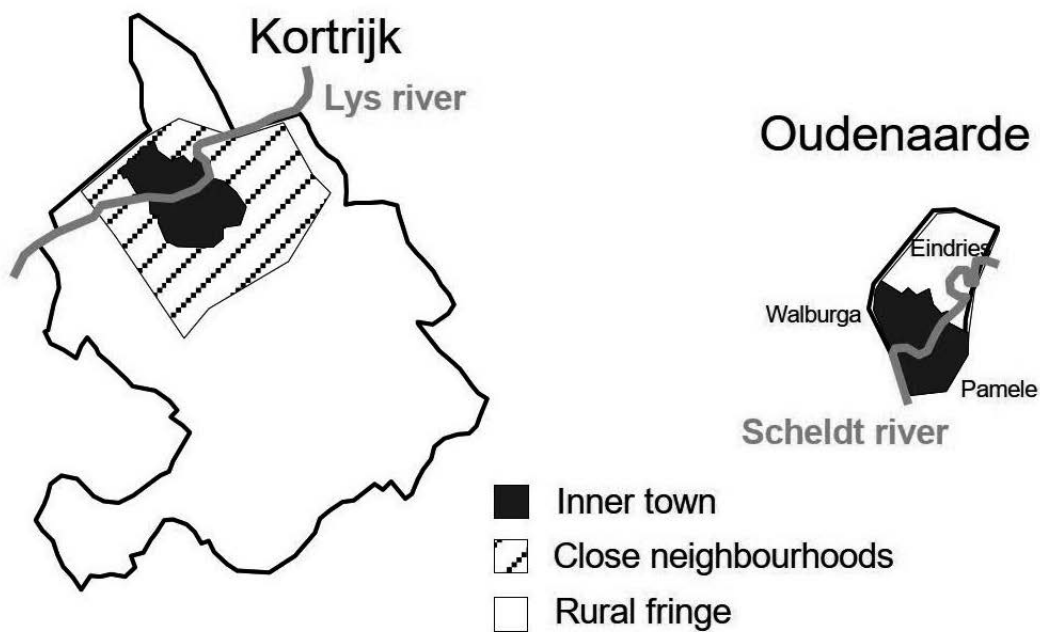
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26 Lucien de Smet, *Steden van Zuid-Oostvlaanderen. III. Oudenaarde*, in: *Tijdschrift van de Belgische Vereniging voor Aardrijkskundige Studies* 20 (1951), 133–164, 138–140; Stefaan Minnaert, *De politieke dynastieën te Oudenaarde van 1815 tot 1914*, unpublished licentiate thesis, Ghent University, 1974; Ministère des Finances (ed.), *Statistique territoriale*.

27 Wouter Ronsijn, *Bevolkingscijfers voor Oudenaarde tijdens de 'lange' negentiende eeuw*, in: *Handelingen van de Geschied- en Oudheidkundige Kring van Oudenaarde* 53 (2017), 103–120.

28 Ministère de l'Intérieur (ed.), *Population. Recensement général (15 octobre 1846)*, Première partie, Bruxelles 1849, 31, 52; Ministère de l'Intérieur (ed.), *Population. Recensement général (31 décembre 1880)*, Bruxelles 1884, 53; Ministère de l'Intérieur (ed.), *Agriculture. Recensement général (15 octobre 1846)*, Tome II, Bruxelles 1850, 45, 345.

Figure 6: The different parts of Kortrijk and Oudenaarde

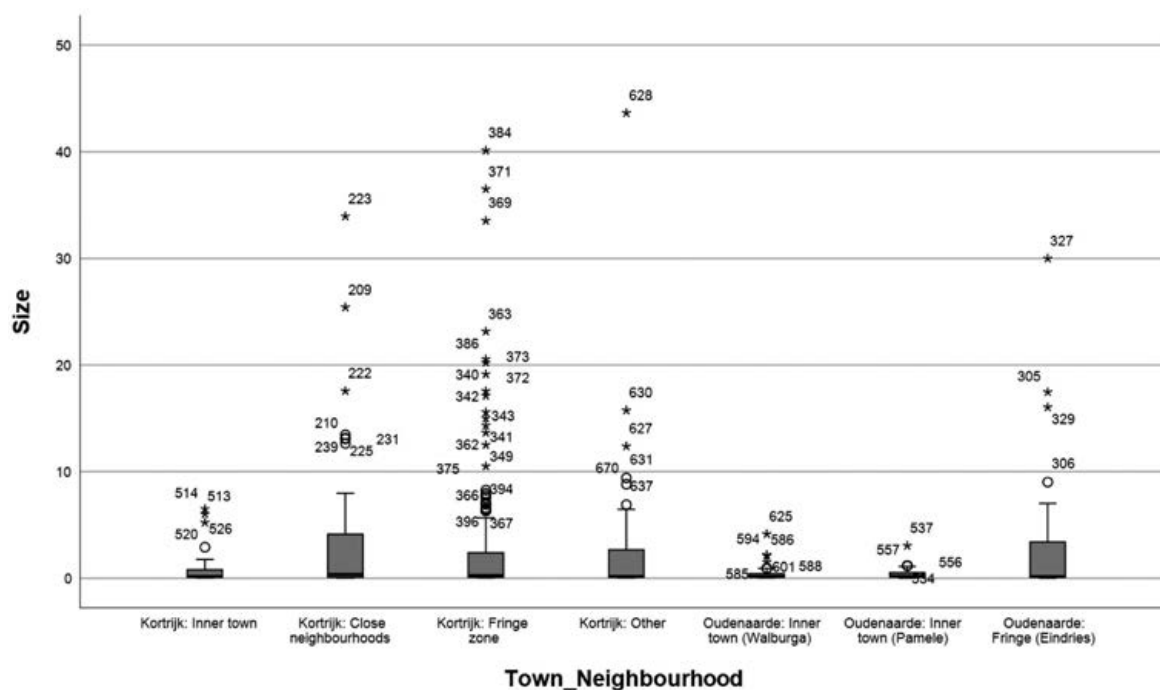


Source: Own map.

## Access to land and holding structures in Kortrijk and Oudenaarde

In the previous section, we already made clear that only a very small minority in Oudenaarde and Kortrijk had access to land. In this section, we focus on how much land these people cultivated, and how this differed according to their location of residence and profession. In both Kortrijk and Oudenaarde, the size of holdings differed considerably according to whether the household lived in the inner town or in other parts, as shown in Figure 7 and Table 1. Households in the inner town had very small holdings: medians were between 0.15 and 0.20 hectares (ha). Three quarters of holdings were smaller than 0.80 ha in Kortrijk and smaller than 0.54 and 0.42 ha in Pamele and Walburga respectively. This is not necessarily due to available space being limited in the urban core of the towns, given that land cultivated by townsmen outside the town centre is also included in these figures. The largest holdings of people living in the inner cities of Oudenaarde and Kortrijk were between 3 ha (Pamele) and 6.5 ha (Kortrijk). Outside the urban core, many holdings were not much larger, but there was a significant minority of medium-sized and large holdings, which was absent in the inner cities. A quarter of all holdings exceeded 3.4 ha in the Eindries (Oudenaarde), 2.4 and 4.1 ha respectively in the fringe zone and the close neighbourhoods of Kortrijk. Between the close neighbourhoods and the fringe zone of Kortrijk there were no meaningful differences. This comparison shows a very sharp difference between the inner towns and the outskirts: farming activities of people living inside the towns were always small-scale; only outside the urban cores were there people farming on a larger scale.

Figure 7: Size of holdings (in ha) by neighbourhood in Kortrijk (1847) and Oudenaarde (1880). The category 'other' in Kortrijk refers to holdings whose location could not be classified.



Source: Oudenaarde: CAO, Modern archive, OUD 711:201.4-53 and 54; Kortrijk: CAK, MSAK, no. 1026.

Table 1: Size of holdings (in ha) by neighbourhood in Kortrijk (1847) and Oudenaarde (1880). The category 'other' in Kortrijk refers to holdings whose location could not be classified.

		N	Mean	Median	Percentile 25	Percentile 75	Maximum
Kortrijk	Inner town	21	1,24	0,18	0,09	0,80	6,50
	Close neighbourhoods	82	3,11	0,36	0,09	4,13	33,95
	Fringe zone	182	2,92	0,27	0,09	2,39	40,12
	Other	45	2,98	0,18	0,09	2,68	43,63
Oudenaarde	Fringe (Eindries)	41	2,86	0,17	0,08	3,41	29,99
	Inner town (Pamele)	34	0,42	0,20	0,13	0,54	3,05
	Inner town (Walburga)	58	0,39	0,15	0,08	0,42	4,15

Source: Oudenaarde: CAO, Modern archive, OUD 711:201.4-53 and 54; Kortrijk: CAK, MSAK, no. 1026.

Using the population registers, we can identify who cultivated these fields and see if the size of holdings differed by occupational group.<sup>29</sup> This is shown in Tables 2 and 3. The population that was professionally involved in agriculture, i.e. reporting 'cultivator' or 'gardener' as profession, was rather small: 93 households in Kortrijk, and only 25 in Oudenaarde (leaving aside households with unknown professions). It is quite remarkable that only two heads of household had the officials register 'gardener' as their profession in Oudenaarde, though four designated as 'cultivators' in the registers only grew vegetables, so in practice they were gardeners as well. Besides the groups professionally involved in food production, in both towns there were also artisans with land, as well as textile workers in Kortrijk and innkeepers in Oudenaarde. Many other professional groups were also represented, but in rather small numbers.

Linking occupation with holding size reveals striking differences between the urban cores and the rest of the jurisdictions of Oudenaarde and Kortrijk. Cultivators quite obviously dominated the rural areas: they had the largest holdings and by far the largest share in the total area under cultivation. The median cultivator outside the town centres held about 4 ha in both towns. Still, people with very small holdings sometimes also called themselves cultivators, especially in the rural part of Oudenaarde: there, a quarter of all cultivators held less than 1.1 ha. In total, cultivators occupied between 70 and 90 per cent of the area under cultivation. Gardeners in general had smaller holdings, with median values ranging between 0.09 and 1.4 ha.

In contrast to Oudenaarde, the Kortrijk tax list also shows greengrocers combining retail activities with obviously commercial agriculture. Though the size of their holdings varied widely, one of them cultivated a holding larger than 5 ha. There was no significant difference between gardeners and greengrocers in the size of their holdings. These greengrocers seem to have been gardeners, often with substantial holdings, cutting out the middle man and selling their output or part of it directly. In Oudenaarde, there were no greengrocers in the agricultural census.

Other occupational groups also had access to land in the rural areas near Oudenaarde and Kortrijk, but they mostly had small holdings rarely exceeding 1 ha. Among the exceptions were agricultural labourers, directly linked through labour and credit markets to the professional farming circuit. In general, they had access to more land than any other families involved in artisanal production or factory work. The five farm servants using land in Kortrijk, for instance, tended to have substantial holdings, with a median of 5.2 ha. Several of these were registered at the same address as the large farmers who employed them, and may have obtained access to their holdings (or part of them) as part of a reciprocal exchange relation with their employers; similar arrangements are known from eighteenth-century service contracts in rural inland Flanders.<sup>30</sup> Some families involved in producing or processing textiles also had access to a larger amount of land. Two linen bleachers in Oudenaarde, living in

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29 The categorisation of occupational groups is based on the professions declared by respondents in the population register. These were not necessarily the exclusive occupations of these people, but can be considered as their main professions.

30 Thijs Lambrecht, Unmarried adolescents and filial assistance in eighteenth-century rural Flanders, in: Georg Fertig (ed.), *Social networks, political institutions and rural societies (Rural History in Europe 11)*, Turnhout 2015, 63–88, 73. Compare to the English large tenants offering their farm labourers a small allotment as part of their remuneration: Jeremy Burchardt, *The allotment movement in England, 1793–1873*, Martlesham 2002.

the Eindries, farmed 2.6 and 3.1 ha respectively. Some outliers in the group of textile workers in Kortrijk also cultivated more than 1 ha like their Oudenaarde colleagues. These groups correspond to the typical peasant household found elsewhere in inland Flanders, working a small farm and combining agriculture with 'proto-industrial' activities.<sup>31</sup> All this indicates that the rural areas near the two towns differed little from the surrounding countryside.

A very different picture appears when we look at the town centres, at the occupational profile of people living there who cultivated land. Here, there were almost no heads of household identifying themselves as farmers. The number of gardeners was likewise small, although two lived in the centre of Kortrijk, cultivating more than 6 ha each, which was almost half of the total area used by inhabitants of the centre. The rest of the agricultural land was divided among artisans in both towns, as well as textile workers in Kortrijk, and merchants and people active in services in Oudenaarde. These people, many of them belonging to what may be broadly termed the working class, usually had only a very small backyard garden. Their plots typically ranged between 0.15 and 0.5 ha. Compared to the total town population, only few urban households had access to a plot of land, but together, these groups still held a significant share of the agricultural area within town centres.

A corresponding difference between the rural areas and the urban cores of Oudenaarde and Kortrijk appears when we look at the distribution of holdings by size. In the rural areas, a minority of larger holdings (10 ha or above) occupied between 50 and 60 per cent of the land. In the urban cores, smaller holdings had a much larger share, although there is a notable difference between Kortrijk and Oudenaarde. In Kortrijk, medium-sized holdings (between 5 and 10 ha) made up most of the cultivated land, due for the most part to the two gardeners with large holdings. The numerical majority of holdings were small, but these added up to only a minor part of the land. In the centre of Oudenaarde, a larger share of the land was divided between the many smallholdings. This is especially notable in the Walburga parish, where more than a third of the land was tilled by people with less than 0.5 ha. This reflects the comparative rarity of holdings with more than 0.5 ha; despite their small numbers, these holdings still occupied a notable part of the land. In other words, land was distributed unequally in all locations (the rural areas and urban cores), but how this inequality manifested differs by location.

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31 Cf. Erik Thoen, A 'commercial survival economy' in evolution. The Flemish countryside and the transition to capitalism (Middle Ages–19th century), in: Peter Hoppenbrouwers/Jan Luiten van Zanden (eds.), *Peasants into farmers? The transformation of rural economy and society in the Low Countries (middle ages–19th century) in light of the Brenner debate* (CORN publications series. Comparative rural history of the North Sea area 4), Turnhout 2001, 102–157.

Table 2: Land cultivated by households with known profession and location in Kortrijk (1847)

Profession of head of household and size of holdings	N of holdings						Size of holdings (ha)						Share of land					
	Inner town		Close neighbourhoods		Fringe zone		Inner town		Close neighbourhoods		Fringe zone		Inner town		Close neighbourhoods			
	N	N	Mean	Median	Q1	Q3	Mean	Median	Q1	Q3	Mean	Median	Q1	Q3	%	%	%	%
Cultivator	0	25					7,32	4,39	2,16	7,10	7,89	3,86	2,20	10,51	0	72		88
Gardener	2	3	6,27	6,27	6,03	6,50	0,21	0,09	0,08	0,45	1,22	1,40	0,66	1,77	48	0		1
Servant	0	1					0,07	0,07	0,07	0,07	4,02	5,20	1,14	6,46	0	0		4
Day labourer	2	4	0,20	0,20	0,18	0,22	4,14	1,51	0,13	8,15	0,13	0,10	0,09	0,18	2	7		0
Food processing	1	3	0,09	0,09	0,09	0,09	1,67	0,61	0,27	4,13	0,18	0,15	0,09	0,26	0	2		0
Textile worker	6	8	1,00	0,16	0,08	0,31	2,44	0,98	0,11	5,62	0,46	0,13	0,09	0,27	23	8		2
Factory worker	1	2	0,18	0,18	0,18	0,18	0,09	0,09	0,09	0,09	0,20	0,13	0,09	0,18	1	0		0
Innkeeper	0	1					0,13	0,13	0,13	0,13	0,87	0,84	0,22	1,51	0	0		1
Artisan/Artisan apprentice	4	12	1,26	0,97	0,17	2,35	0,77	0,09	0,07	0,16	0,62	0,18	0,09	0,27	19	4		2
Shopkeeper	2	1	0,13	0,13	0,09	0,18	0,03	0,03	0,03	0,03	0,16	0,16	0,13	0,19	1	0		0
Services	1	5	0,80	0,80	0,80	0,80	0,10	0,09	0,09	0,13	0,16	0,16	0,13	0,19	3	0		0
Rentier or private person	1	3	0,62	0,62	0,62	0,62	0,82	0,18	0,18	2,11	1,06	1,06	0,13	2,00	2	1		0
No profession	0	5					0,18	0,09	0,09	0,12	0,16	0,10	0,09	0,18	0	0		1
Merchant	1	1	0,09	0,09	0,09	0,09	7,97	7,97	7,97	7,97	0,96	0,96	0,18	1,74	0	3		0
Military/Police/Civil servant	0	1					0,09	0,09	0,09	0,09	0,58	0,58	0,58	0,58	0	0		0
Green grocer	0	3					2,51	1,56	0,71	5,27	0,62	0,62	0,62	0,62	0	3		0
Other	0	4					0,18	0,18	0,14	0,22	0,12	0,09	0,09	0,18	0	0		0
0 – 0.5 ha	14	42	0,15	0,17	0,09	0,18	0,12	0,09	0,09	0,14	0,15	0,13	0,09	0,18	8	2		3
0.5 – 1 ha	2	3	0,71	0,71	0,62	0,80	0,61	0,61	0,52	0,71	0,63	0,63	0,58	0,70	5	1		1
1 – 2.5 ha	1	9	1,77	1,77	1,77	1,77	1,75	1,79	1,56	2,11	1,72	1,74	1,33	1,98	7	6		9
2.5 – 5 ha	1	10	2,92	2,92	2,92	2,92	3,45	3,10	2,79	4,13	3,65	3,68	3,27	3,90	11	14		10
5 – 10 ha	3	11	5,92	6,03	5,23	6,50	6,19	5,90	5,67	6,94	6,78	6,92	6,32	7,53	68	27		19
10 – 30 ha	0	6					15,88	13,30	13,08	17,56	16,61	16,36	14,00	19,68	0	37		38
> 30 ha	0	1					33,95	33,95	33,95	33,95	36,72	36,50	33,53	40,12	0	13		21

Source: CAK, MSAK, no. 1026.

Table 3: Land cultivated by households with known profession and location in Oudenaarde (1880)

Profession of head of household and size of holdings	N of holdings			Pamele			Size of holdings (ha)						Share of land					
	Pamele	Walburga	Eindries	Mean	Median	Q3	Mean	Median	Q1	Q3	Mean	Median	Q1	Q3	%	%	%	
Cultivator	3	5	15	0,50	0,33	0,08	1,10	1,11	0,93	0,92	1,51	7,21	4,34	1,12	9,02	11	25	92
Gardener	1	0	1	1,17	1,17	1,17	1,17					0,75	0,75	0,75	0,75	8	0	1
Servant	0	0	1									0,08	0,08	0,08	0,08	0	0	0
Day labourer	1	0	3	0,69	0,69	0,69	0,69					0,26	0,06	0,05	0,66	5	0	1
Food processing	0	0	0													0	0	0
Textile worker	0	0	3									1,88	2,56	0,02	3,06	0	0	5
(Factory) Worker	0	1	1					0,06	0,06	0,06	0,06	0,11	0,11	0,11	0,11	0	0	0
Innkeeper	3	8	3	0,17	0,23	0,03	0,25	0,13	0,13	0,08	0,17	0,11	0,10	0,07	0,17	4	4	0
Artisan/Artisan apprentice	10	14	9	0,24	0,20	0,15	0,21	0,61	0,15	0,08	0,42	0,07	0,08	0,06	0,09	17	38	1
Shopkeeper	2	1	0	0,26	0,26	0,22	0,30	0,08	0,08	0,08	0,08					4	0	0
Services	7	2	3	0,32	0,13	0,06	0,54	0,17	0,17	0,08	0,26	0,19	0,14	0,10	0,33	16	2	0
Rentier or private person	1	6	0	0,13	0,13	0,13	0,13	0,21	0,21	0,11	0,23					1	5	0
No profession	0	4	0					0,21	0,10	0,07	0,35					0	4	0
Merchant	4	4	2	0,93	0,25	0,17	1,69	0,23	0,14	0,13	0,32	0,16	0,16	0,03	0,29	26	4	0
Legal & administrative professions	2	7	0	0,64	0,64	0,08	1,20	0,34	0,28	0,10	0,49					9	11	0
Other	0	3	0					0,13	0,13	0,05	0,20					0	2	0
Entrepreneur	0	3	0					0,44	0,50	0,18	0,65					0	6	0
0 – 0,5 ha	25	48	23	0,16	0,18	0,08	0,21	0,17	0,13	0,08	0,20	0,10	0,08	0,06	0,13	29	36	2
0,5 – 1 ha	4	6	4	0,59	0,57	0,56	0,63	0,76	0,79	0,58	0,93	0,75	0,71	0,66	0,84	17	20	3
1 – 2,5 ha	4	3	1	1,16	1,17	1,14	1,19	1,94	2,11	1,51	2,19	1,12	1,12	1,12	1,12	33	26	1
2,5 – 5 ha	1	1	7	3,05	3,05	3,05	3,05	4,15	4,15	4,15	4,15	3,67	3,64	3,06	4,34	22	18	22
5 – 10 ha	0	0	3									7,23	7,01	5,67	9,02	0	0	18
10 – 30 ha	0	0	3									21,17	17,47	16,04	29,99	0	0	54
> 30 ha	0	0	0													0	0	0

Source: CAO, Modern archive, OUD 711:201.4-53 and 54.



The agricultural census forms of Oudenaarde allow us to get a glimpse of the social property relations, i.e. whether people leased or owned the land they cultivated (Table 4). As with the figures on farm size and land distribution, the rural part of the town (Eindries) closely followed the patterns of the surrounding countryside, with almost all of the land held in leasehold (over 90 per cent).<sup>32</sup> Relations between landowner and tenant in this rural fringe zone most probably had paternalistic characteristics and were part of local credit networks, just as in the smallholding commercial subsistence economy of inland Flanders.<sup>33</sup> (The Kortrijk tax list hints at a comparable relation between the textile workers and commercially involved urban farmers there.) Similar proportions were found in the Pamele parish, but in the administrative centre of the town, Walburga parish, people owned more than half of the land they cultivated. Relations between proprietors and tenant households in these inner parts of the town that engaged in home food growing will most likely have been different from the ones in which the professional farming and gardening circuit of the fringe zone was involved. Probably, these tenant households rented a house with a (backyard) garden from a proprietor active on the urban housing market; the income strategy of such owners might differ from that of landowners in the countryside. Unfortunately, the census data do not permit us to uncover these differences in tenant-owner relations between the commercially involved urban farmers and the families engaged in home food provisioning.

In addition to holding structures, we are also informed about the location of the cultivated plots: whether they were inside or outside the municipality, including both the inner town and its rural fringe (Table 4). People living in the inner town rarely cultivated land located outside the municipality, though their holdings may have been in the rural fringe. In contrast, over 40 per cent of the land worked by people living in the rural fringe was located in other municipalities, most of it in the two adjoining ones of Bevere and Eine.

Table 4: Access to land by neighbourhood in Oudenaarde, 1880

	Fringe (Eindries)	Inner town (Pamele)	Inner town (Walburga)
Percentage of land held in ownership / leasehold	8 / 92	17 / 83	55 / 45
Percentage of cultivated land located outside the municipality of Oudenaarde	42	10	11

Source: CAO, Modern archive, OUD 711:201.4-53 and 54.

32 Compare to observations of the dominance of leasehold in the surrounding countryside: Eric Vanhaute, Rich agriculture and poor farmers: land, landlords and farmers in Flanders in the eighteenth and nineteenth centuries, in: *Rural History* 12/1 (2001), 19–40, 25.

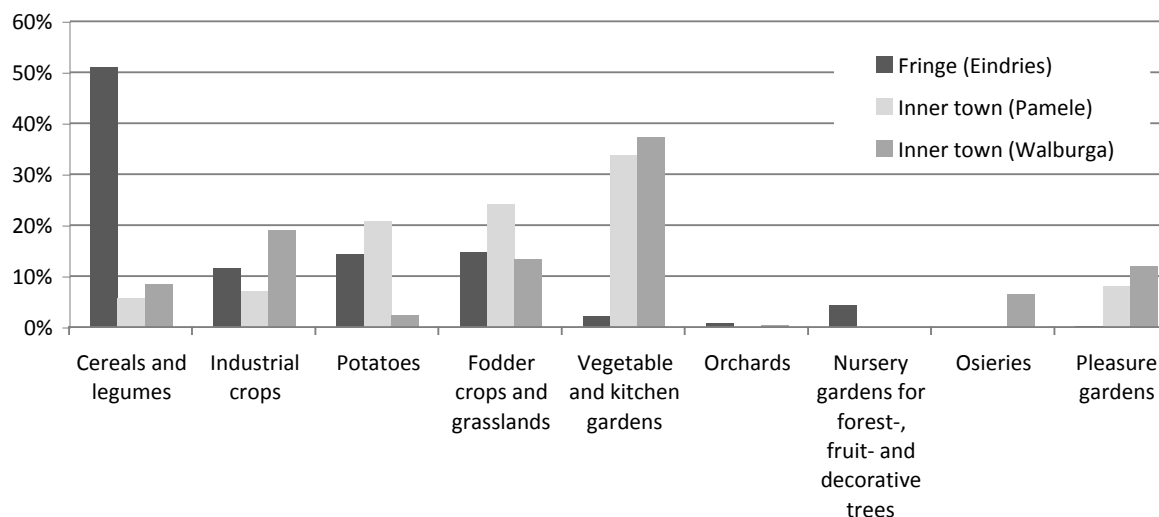
33 Cf. Paul Brusse et al., *The Low Countries, 1750–2000*, in: Van Bavel/Hoyle (eds.), *Social relations*, 199–224, 203–205.

## Cropping schemes of commercial urban farmers and households with home food gardens in Oudenaarde

The Oudenaarde census forms reveal a sharp difference between the inner town and the rural fringe not only in terms of holding structures, but also of production strategies. Figure 8 shows what was grown on holdings in the different parts of Oudenaarde. People farming outside the town centre grew what other rural households did as well: mainly cereals (50 per cent of the cultivated area), complemented with industrial crops, potatoes, and fodder or grasslands (about 15 per cent each). In contrast, people living within the town, where mostly small garden plots were found, primarily grew vegetables and herbs (about 35 per cent). In Pamele parish, they also devoted a substantial share to potatoes (about 20 per cent), although potatoes were undoubtedly grown in the vegetable gardens of Walburga as well. In addition, the inner town numbered more pleasure gardens (about 10 per cent).

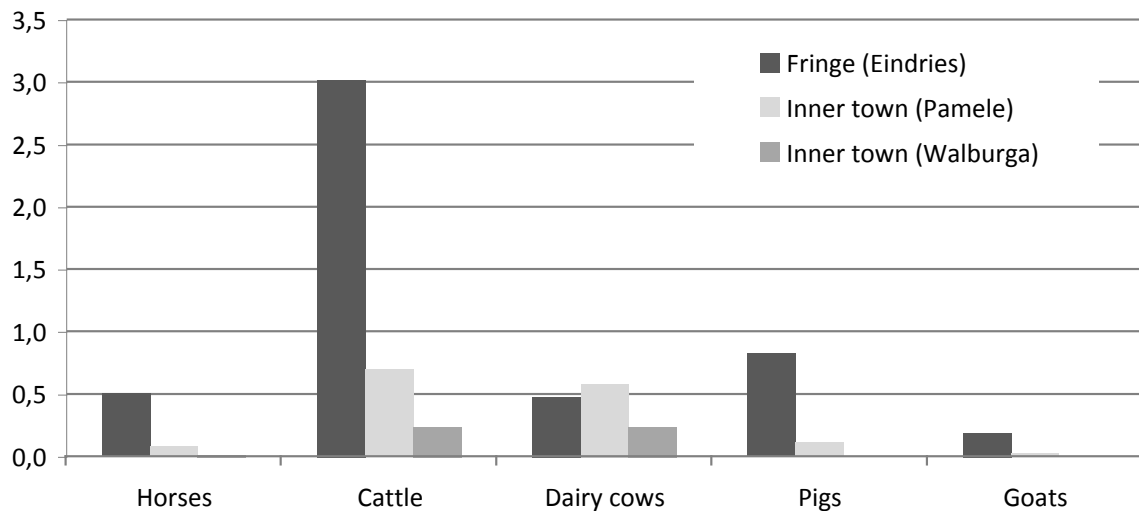
The data on livestock in Figure 9 show that hardly any animals were kept for agricultural purposes by people living within the town walls. Strikingly, dairy cows figure most prominently of all farm animals in the town centre. In relative terms, as many dairy cows were kept per holding by people living in Pamele as by people living in the rural part of the town, and half as many by people living in Walburga. However, only a minority of all holdings included dairy cows regardless of location (the proportion being highest in Pamele: 7 out of 34 holdings), but when they did, the number of dairy cows differed little between neighbourhoods.

Figure 8: Agricultural production in Oudenaarde, 1880, by neighbourhood (distribution of crops over the total agricultural area)



Source: CAO, Modern archive, OUD 711:201.4-53 and 54.

Figure 9: Livestock in Oudenaarde, 1880, by neighbourhood (average number of livestock per holding; "cattle" includes dairy cows)



Source: CAO, Modern archive, OUD 711:201.4-53 and 54.

Looking at the occupational groups to which these people belonged (Table 5) again reveals a clear difference between rural and urban production strategies. Households professionally engaged in farming (cultivators and gardeners), as well as textile workers, devoted up to 50 per cent of their acreage to cereals, complemented with potatoes, fodder crops and grasslands. Most of these lived in the rural fringe (19 out of 28). Even gardeners, with smaller holdings than cultivators, did not fully specialise in horticultural production and still used 20 per cent of their land for cereals. Conversely, those few self-identified cultivators who lived within the town walls (8 out of 23 in this occupational category) did not produce cereals, but devoted their entire acreage to potatoes, vegetables and fodder crops, whereas the one gardener living within the town walls did grow oats. There was one holding in the Eindries that devoted 72 per cent of its 5.6 ha to growing forest, fruit or decorative trees. Finally, most of the livestock (horses, cattle, and pigs) was kept by cultivators living in the Eindries. With an average of 7.6 cattle (of which only 1.1 dairy cows) and 2 pigs per holding, meat production seems to have been an important part of agriculture in the Eindries, although relative to the area under cultivation these numbers are no different from those in the rest of the district.

Other occupational groups consisted mainly of households with small backyard gardens of less than 0.5 ha, both within the town walls and in the rural fringe. They devoted most of their tiny plots to high-yielding crops, such as potatoes and vegetables, up to 70 and 80 per cent of their available surface area. In the Eindries and Pamele, these households used their land for potatoes and vegetables, whereas in Walburga potato plots were all but absent. Households in the latter parish did have vegetable gardens, as well as pleasure gardens. These last can be linked to what may be seen as the 'leisure class': people living off rents or declaring no profession; besides them, people in legal or administrative professions and merchants also tended to have pleasure gardens. Yet altogether, these surfaces in the urban core were very small. If households in these occupational categories kept animals, they were almost exclusively dairy cows. The fact that some of them (a small cultivator, a day labourer, an artisan, an entrepreneur, and two people active in services professions) had less than 1 ha at their disposal while

keeping one or even two cows might seem unusual.<sup>34</sup> These households had too little space to produce fodder or keep meadows (which they did not, or only to a small extent), so other paths must have been followed, such as letting their cows graze on the town common.<sup>35</sup> This might explain the presence of some cattle in the inner town of Oudenaarde. In Kortrijk, according to a livestock census of 1840, eleven households located in Kortrijk-Binnen (the inner town) held 35 cows out of a total of 919 cows on Kortrijk's territory (including the close neighbourhoods and the fringe zone), meaning that only a tiny fraction (3.8 per cent) of all cows were stabled in the inner town.<sup>36</sup> Pig keeping in Oudenaarde was related to the professional farming circuit: only a few households from other occupational groups kept pigs, and two of those groups (day labourers and textile-processing urban peasant households) were themselves closely linked to the farming circuit. Unfortunately, small livestock, such as poultry, was not counted in the 1880 agricultural census, but we have an indication for 1844 that people living inside the walls raised poultry and even sold it in the market.<sup>37</sup>

To summarise, indications for a Thünen-like specialisation model linking crop choice or livestock numbers with the distance to the urban centre and transportation costs seem very faint. Farming in the rural fringe of Oudenaarde was not notably different from farming in the rest of the district. Only people living within the town walls, who probably faced more competition for urban open space, focused on high-yielding potatoes and vegetables. The question remains whether or not this focus was motivated by commercial considerations.

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34 On the ability to maintain cows on smallholding farms, see Jean-Marc Moriceau, *Histoire et géographie de l'élevage français, du Moyen Âge à la Révolution*, Paris 2005, chapter 11.

35 Henry French, *Urban agriculture, commons and commoners in the seventeenth and eighteenth centuries: the case of Sudbury, Suffolk*, in: *Agricultural History Review* 48/2 (2000), 171–199; CAO, Modern Archive, 723.0-1 Donkmeers 1834.

36 CAK, MSAK, no. 5706 Stukken i.v.m. de telling van paarden en hoornvee 1840–1867. Of these 35 cows, 25 were held by a single person specialising in this trade, who presumably had access to meadows and arable land in the close neighbourhoods and rural fringe of Kortrijk.

37 CAO, Modern archive, Deliberations of the municipal council: 16 Nov. 1844, 7 Dec. 1844.

Table 5: Arable production (ha) and livestock (heads) by occupational category and neighbourhood in Oudenaarde, 1880

	N	Cereals and legumes	Industrial crops	Potatoes	Fodder crops and grasslands	Vegetable and kitchen gardens	Orchards	Nursery gardens for forest-, fruit- and decorative trees	Osieries	Pleasure gardens	Total (ha)	Horses	Cattle	Dairy cows	Pigs	Sheep	Goats
Rural fringe (Eindries)																	
Cultivator	15	56,28	13,44	13,77	14,90	1,68	1,07	5,19			106,33	20	114	16	30		2
Gardener	1	0,20		0,18		0,37					0,75						
Servant	1			0,06		0,02					0,08						
Day labourer	3		0,01	0,61	0,19	0,04					0,85				2		2
Textile worker	3	2,45	0,01	1,20	1,96	0,02					5,64	1	8	2	2		
(Factory)Worker	1			0,06		0,05					0,11						
Innkeeper	3	0,05		0,16		0,13					0,34						
Artisan/Artisan apprentice	9		0,01	0,39		0,26					0,66						2
Services	3	0,12	0,01	0,26	0,13	0,05					0,57		2	2			2
Merchant	2					0,03				0,29	0,32						
Inner town (Pamele)																	
Cultivator	3			0,17	0,82	0,26					1,25		4	4			
Gardener	1	0,17		0,51	0,47	0,02					1,17		3	3			
Day labourer	1			0,17	0,41	0,11					0,69		2	2			
Innkeeper	3			0,16		0,35					0,51						1
Artisan/Artisan apprentice	10					1,67			0,68		2,35						
Shopkeeper	2	0,05		0,20	0,05	0,22					0,52				2		
Services	7			0,21	0,53	0,87					1,61		4	4			
Rentier or private person	1					0,13					0,13						
Merchant	4	0,54	0,62	1,10	0,76	0,36				0,32	3,70	2	9	5	2		
Legal & adm. professions	2		0,33	0,23	0,16	0,48				0,08	1,28	1	2	2	2		
Inner town (Walburga)																	
Cultivator	5			0,52	1,28	1,82					3,62		8	8			
(Factory)Worker	1					0,06					0,06						
Innkeeper	8					0,80				0,20	1,00						
Artisan/Artisan apprentice	14	1,22	3,97		0,37	1,37		1,35	0,21		8,49	1	5	5			

Shopkeeper	1		0,08		0,08		
Services	2		0,34		0,34		
Rentier or private person	6	0,42	0,06		0,76	1,24	
No profession	4		0,54		0,30	0,84	
Merchant	4		0,46	0,44		0,90	
Other	3		0,28		0,10	0,38	
Entrepreneur	3	0,10	0,65	0,30	0,10	0,18	1,33
Legal & adm. professions	7		1,65		0,75	2,40	

Source: CAO, Modern archive, OUD 711:201.4-53 and 54.

## When food supply meets demand at the household level

In order to evaluate at what point urban households involved in either kind of food production reached self-sufficiency and were able to start commercialising their products, we compare household-level output data with household consumption needs. Whereas previous studies of (peri-)urban agriculture were only able to evaluate self-sufficiency rates at the macro-level of urban territories,<sup>38</sup> our worm's-eye view permits us to do this at the household level. We can thus evaluate to what extent access to a plot of land helped urban dwellers to meet their food needs, and perhaps even enabled them to commercialise different kinds of crops. Thanks to the extraordinary detail on cropping patterns in the Oudenaarde censuses, we can estimate output figures at the household level using average crop yields for this period,<sup>39</sup> and compare these outputs with estimated consumption needs, based on the number of household members and on average consumption figures in Belgian cities.<sup>40</sup>

38 E.g. calculation of self-sufficiency levels of urban grain production in Sweden: Annika Björklund, *Historical urban agriculture. Food production and access to land in Swedish towns before 1900* (Acta Universitatis Stockholmiensis. Stockholm Studies in Human Geography 20), Stockholm 2010, 101–154. Self-sufficiency of peri-urban cereal farming in the province of Barcelona in the nineteenth century: Marc Badia-Miró/Enric Tello, *Vine-growing in Catalonia: the main agricultural change underlying the earliest industrialization in mediterranean Europe (1720–1939)*, in: *European Review of Economic History* 18/2 (2014), 203–226, 211.

39 We used the five-year mean (1878–1882) of Gadisseur's estimations of crop yields for East Flanders: 24.13 hl/ha of wheat, 25.99 hl/ha of rye, and 185.99 hl/ha of potatoes, Jean Gadisseur, *Le produit physique de la Belgique, 1830–1913. Présentation critique des données statistiques*, Brussels 1990, 406–407, 414–415, 418–419.

40 Our reconstruction of food demand is based upon the figures of Blomme, *The economic development*, 78, 87. In the period 1877–1880, estimations of wheat, rye, and potato consumption were set at 1.73, 0.94, and 2.85 hl per year respectively. We assume similar consumption levels in Oudenaarde as in other cities in accordance with the comparison between Ghent and Antwerp by Catharina Lis/Hugo Soly, *Food consumption in Antwerp between 1807 and 1859: a contribution to the standard of living debate*, in: *The Economic History Review* 30/3 (1977), 460–486, 481. However, regional variation might have existed as argued by Chris Vandembroeke, *La culture de la pomme de terre en Belgique (XVII<sup>e</sup>–XIX<sup>e</sup> siècles)*, in: *Plantes et cultures nouvelles en Europe occidentale au Moyen Age et à l'époque moderne* (Douzièmes journées internationales d'histoire du centre culturel de l'Abbaye de Flaran, 11–13 septembre 1990), Auch 1992, 115–129, 120–122, 126–128; see also Peter Scholliers, *Arm en rijk aan tafel: tweehonderd jaar eetcultuur in België*, Berchem 1993, 25.

The results are shown in Table 6. We consider bread grains (wheat and rye) first. None of the people living in the inner town grew these, only people in the rural fringe did. The (semi-) professional urban farmers easily met their own consumption needs in most cases, and quite logically had much of their cereal output left to commercialise. Since our consumption figures reflect an urban food basket privileging wheat over rye, whereas in reality rye consumption would have prevailed among the cultivators and gardeners growing cereals in the rural fringe area of the Eindrives,<sup>41</sup> our limit for self-sufficiency in wheat is set too high and that for rye somewhat underestimated. However, we can conclude that cultivators usually met their consumption needs and that cereal producers were, on average, able to commercialise about 40 per cent of their wheat and rye output. As in the surrounding smallholding agriculture of inland Flanders, the size of the farm was decisive for the extent of commercialisation, with a one-hectare holding as the cut-off point.<sup>42</sup> Households with less than half a hectare had too little space to incorporate cereals into their rotation; those cultivating between 0.5 and 1 ha could produce enough rye to meet up to three quarters of their own needs. Above 1 ha the average amount of marketable output rose in proportion to farm size: a quarter of the output in the category from 1 to 2.5 ha, a third on farms with 2.5 to 5 ha, 80 per cent in the 5 to 10 ha group, and up to 88 per cent on the largest farms.

Potatoes and vegetables were much more economical to produce on smallholdings and in backyard gardens, because of their high yields and, for vegetables, the possibility of multiple harvests per year.<sup>43</sup> However, it is more difficult to reconstruct production figures for vegetables than for potatoes, as we lack information on the types of vegetables that were grown, the frequency of harvests, and the yields per surface area. Therefore, we estimate consumption needs using Gadisseur's observation that a garden plot of 0.03 ha was sufficient to provide a family of five with enough vegetables for one year. We compare this to the size of actual garden plots to assess whether self-sufficiency was reached and commercialisation or sharing was possible.<sup>44</sup>

Potatoes and vegetables were grown both by inhabitants of the inner town and by people living in the urban fringe. However, the inhabitants of the inner town appear to have been more successful in terms of self-sufficiency. Nearly all the households living there and cultivating potatoes and vegetables, regardless of occupational category, grew more than they theoretically needed. These people could produce enough to meet the food demand of their families and ease their household budgets. Ironically, the only person who did not grow

41 Cf. Jan de Vries, *The production and consumption of wheat in the Netherlands, with special reference to Zeeland in 1789*, in: Herman Diederiks/Jan Thomas Lindblad/Boudien de Vries (red.), *Het platteland in een veranderende wereld. Boeren en het proces van modernisering*, Hilversum 1994, 199–219, 200–202. For Kortrijk, an 1822 inquiry illustrates the dominance of wheat over rye consumption within the town walls (a nine to one proportion) vis-à-vis the rural outskirts (slightly less than a fifty-fifty proportion): CAK, MSAK, no. 1025.

42 Thoen, *A 'commercial survival economy'*, 111; Pieter de Graef, *Mesthoop doet leven? Stadsmeester en een beter bemestingspatroon in de achttiende-eeuwse Vlaamse landbouw*, in: *Tijdschrift voor sociale en economische geschiedenis* 14/1 (2017), 37–68, 55–63.

43 Vandenbroeke, *La culture de la pomme de terre*; Michel Oris/Muriel Neven/George Alter, *Individuals and communities facing economic stress: a comparison of two rural areas in nineteenth-century Belgium*, in: Robert C. Allen/Tommy Bengtsson/Martin Dribe (eds.), *Living standards in the past. New perspectives on well-being in Asia and Europe*, Oxford 2005, 373–401, 375; Gadisseur, *Le produit physique*, 540; Kint, *Prometheus*, 258.

44 The degree of commercialisation was hence calculated as follows:  $(\text{Output} - \text{Consumption}) / \text{Output} = (\text{size of the garden plot} - 0.03 * (\text{number of family members} / 5)) / \text{size of the garden plot}$ ; Gadisseur, *Le produit physique*, 540; similar estimation by Stanhill, *An urban agro-ecosystem*, 277.

enough vegetables identified himself as a gardener. In contrast, in the rural fringe, surprisingly many households grew insufficient amounts of potatoes and, to a lesser extent, of vegetables.

If we consider the figures by occupational groups, we see that the vast majority of cultivators were able to sell more than 65 per cent of their potato output, but also produced barely enough vegetables. The one gardener in the urban fringe was able to sell almost his entire harvest of potatoes and vegetables. A similar picture appears when we focus on the sizes of holdings. In the inner town, even the smallest holdings produced more than enough to cover household needs, whereas the opposite was the case in the rural fringe. Yet we should take these estimations with a large pinch of salt, because vegetable gardens most probably consisted not only of vegetables but also included a substantial share of potatoes, which were hence not reported as separate crops in the census responses.<sup>45</sup> Thus, our calculations might be overestimations. Still, our results indicate that the minority of households having the possibility to grow their own food could reach quite high levels of vegetable production, a part of which they were able to share with neighbours or to sell in the market.

In general, the percentage of output available for sale increased with the size of the holding. The largest farms could sell almost their entire potato harvest, but only half of the vegetable harvest. While larger farms devoted a lesser percentage of their arable land to potatoes, in absolute terms the acreage was still larger than that of the smallholdings and backyard gardens.<sup>46</sup> For vegetables, in contrast to potatoes, farm size seemed to play a far less important role: the absolute area under vegetables did not increase with the size of the farms.<sup>47</sup> Quite surprisingly, the other social groups, cultivating the tiniest of holdings, were according to the estimations able to commercialise a substantial amount of their output. The best option for smallholding cultivators and gardeners was to devote less acreage to cereals or even to abandon them altogether, and to grow high-yielding potatoes and labour-intensive vegetables on most of their land. Larger farmers, instead, did not and probably could not apply the required labour power for large-scale vegetable production, and thus stuck to cereal and potato cultivation – at least before the effects of the Agricultural Invasion, the rapid expansion of foreign grain imports, were felt in Europe in the last quarter of the nineteenth century.<sup>48</sup> The size of the urban population and the extent of the rural fringe are of paramount importance in this. The more crowded a town, the more competition the (semi-)professional urban agricultural sector experienced from the industry and housing sectors for urban open space. The resulting fragmentation of holdings subsequently influenced what crops the commercially involved urban farmers were able to grow.<sup>49</sup>

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45 Cf. Kint, *Prometheus*, 49–53, 258–260.

46 Mean percentage of land devoted to potatoes: 0–0.5 ha = 68.4; 0.5–1 ha = 31.7; 1–2.5 ha = 24.9; 2.5–5 ha = 19.6; 5–10 ha = 12.3; 10–30 ha = 11.3; mean number of hectares of potatoes per exploitation: 0–0.5 ha = 0.09; 0.5–1 ha = 0.24; 1–2.5 ha = 0.31; 2.5–5 ha = 0.66; 5–10 ha = 0.9; 10–30 ha = 2.37; database Oudenaarde.

47 Mean percentage of land devoted to vegetables: 0–0.5 ha = 82.8; 0.5–1 ha = 41.1; 1–2.5 ha = 31.2; 2.5–5 ha = 3.0; 5–10 ha = 0.3; 10–30 ha = 1.0; mean number of hectares of vegetables per exploitation: 0–0.5 ha = 0.10; 0.5–1 ha = 0.31; 1–2.5 ha = 0.20; 2.5–5 ha = 0.13; 5–10 ha = 0.02; 10–30 ha = 0.26; database Oudenaarde.

48 Eddy van Leuven, *Bijdrage tot de tuinbouwgeschiedenis: de Belgische groenteteelt, 1830–1914*, Aartrijke 1990, 94–95; Kevin O'Rourke, *The European grain invasion, 1870–1913*, in: *The Journal of Economic History* 57/4 (1997), 775–801; Ronsijn, *Commerce and the countryside*, 265–277.

49 On the effect of population density on fragmentation of holdings and crop types in the metropole of Paris, see the observations of the nineteenth-century head gardener of the horticultural school of Vilvoorde, Van Leuven, *Bijdrage tot de tuinbouwgeschiedenis*, 95.



Table 6: Commercialisation estimates of wheat, rye, potatoes, and vegetables according to occupational group and holding size in Oudenaarde (per cent of total output theoretically available for sale, after subtracting household needs; St. Dev. = standard deviation).

Profession of head of household and size of holdings	Rural fringe (Eindries)						Inner town (Pamele and Walburga)												
	Total N	Wheat Mean	St. Dev.	N	Rye Mean	St. Dev.	N	Potatoes Mean	St. Dev.	N	Vegetables Mean	St. Dev.	Total N	Potatoes Mean	St. Dev.	N	Vegetables Mean	St. Dev.	
Cultivator	15	40,3	53,3	14	39,6	59,4	15	66,6	42,8	15	-7,4	86,8	8	65,6	27,8	8	77,4	14,9	
Gardener	1	0		1	63,8		1	83,0		1	96,8		1	88,0		1	-20,0		
Servant	1	0		0			1	-0,5		1	-20,0		0	0		0			
Day labourer	3	0		0			3	39,0	38,4	1	-2,4		1	36,9		1	61,8		
Food processing	0	0		0			0			0			0	0		0			
Textile worker	3	2	-50,0	2	41,2	14,3	2	82,7	8,1	1	20,0		0	0		0			
(Factory) Worker	1	0		0			1	-78,8		1	16,0		1	0		1	60,2		
Innkeeper	3	1	-617,0	0			2	-64,5	128,6	3	16,0	65,9	11	34,6		10	61,1	39,1	
Artisan/Artisan apprentice	9	0		0			6	-26,0	50,5	8	0,3	44,0	24	0		21	60,6	47,1	
Shopkeeper	0	0		0			0			0			3	61,7		2	74,3	6,1	
Services	3	1	-258,5	0			3	-19,3	30,5	2	-75,0	35,4	9	48,9		9	62,3	24,5	
Rentier or private person	0	0		0			0			0			7	0		2	78,1	11,5	
No profession	0	0		0			0			0			4	0		3	83,3	12,5	
Merchant	2	0		0			0			0	27,3		8	93,0		7	47,7	39,9	
Legal & administrative professions	0	0		0			0			0			9	26,7		5	85,4	10,0	
Other	0	0		0			0			0			3	0		3	62,4	29,0	
Entrepreneur	0	0		0			0			0			3	0		1	94,0		
0 – 0.5 ha	23	2	-437,7	253,5	0		16	-27,1	54,0	18	-8,7	52,0	73	2	48,1	19,2	57	61,9	36,1
0.5 – 1 ha	4	1	-46,7		3	-23,0	75,4	4	51,5	40,3	-33,6	107,5	10	2	42,9	8,5	10	84,6	14,4
1 – 2.5 ha	1	1	-2,4		1	27,7		1	61,7		0,0		7	4	61,5	30,1	6	63,9	42,6
2.5 – 5 ha	7	7	-0,1	63,8	7	33,6	42,5	7	78,3	12,5	9,5	118,0	2	1	93,0		1	3,2	
5 – 10 ha	3	2	84,1	2,9	3	80,3	5,3	3	90,5	9,9	13,3	5,8	0	0		0			
10 – 30 ha	3	3	88,5	8,5	3	88,5	6,0	3	96,0	1,0	43,3	45,1	0	0		0			

Source: CAO, Modern archive, OUD 711.201.4-53 and 54.

## Concluding remarks

Our micro-level approach, using household-level information from a tax list and census forms, enabled us to unravel the characteristics of the urban 'rural economy' of one small and one medium-sized town in the smallholding agricultural region of inland Flanders: Oudenaarde and Kortrijk. We did so by looking at holding structures and production strategies of a broad range of urban social groups, living in and near the inner towns, with access to smaller or larger amounts of land for food production.

We can conclude that the social continuum from home food growers to professional gardeners and farmers overlapped with a geographical continuum from the rural fringe to the urban core. For both towns we find a clear difference between, on the one hand, mainly rural agricultural production patterns, located outside the core and found among inhabitants calling themselves cultivators; and on the other hand, more urban production patterns, found inside the urban core and among inhabitants with other professions. Garden plots used by self-provisioning households predominated in the inner town, whereas the (semi-)professional farming circuit was first and foremost located outside the urban core. Few households in the inner town whose primary profession was non-agricultural (farm servants and day labourers are excepted here) had access to their own plot of land – but when they did, they were able to substantially add to their family budget. They did so by strategically opting for high-yielding vegetables and potatoes, enabling them to share or perhaps to sell a part of the output. Most of these households did not keep animals apart from perhaps some small livestock, such as poultry. Still, some households in Oudenaarde with very small holdings kept one or two dairy cows, possibly grazed on the town common. Most livestock, however, was kept by (semi-)professional farming households in the fringe zone outside the town gates. There, households commercially involved in farming and gardening followed a more diverse agricultural production strategy, usually focussing not merely on vegetables and dairy but on a diverse set of crops, just as in the rest of inland Flanders. Their output was dominated by cereals (up to 50 per cent) and supplemented by potatoes, industrial crops, fodder and grassland. Professional gardeners had larger holdings than home food growers, but smaller ones than cultivators. This led them to focus less on cereals and instead to favour high-yielding potato and vegetable production. In turn, the cultivators with the largest holdings stuck to cereal cultivation, at least until the Agricultural Invasion, probably lacking the necessary labour power to produce vegetables on a larger scale. Besides cropping patterns, the urban 'rural economy' also resembled that of the surrounding countryside in terms of holding structures. Especially the rural areas of both towns hardly differed. As in the villages of inland Flanders, leasehold predominated among urban farming and gardening families (observed for Oudenaarde). In the inner town, proportions of leasehold versus owner-occupation were more ambiguous, which most likely had to do with differences in tenant-owner relations.

Thus, Thünen-like agricultural location and bid rent theories do not seem to apply to inland Flemish urban environments, since we observed no gradual shift in agricultural production towards vegetable gardening and dairying when approaching the inner town. Instead, a sharp difference existed between a focus on potatoes and vegetables by home food producers in the urban core and a much more diversified cropping pattern by (semi-)professional farming households just outside the town centre. In other words, the social agro-system of inland Flanders extended up to the town walls. Our analysis of cereal, potato, and vegetable

cultivation shows few traces of specialisation in response to the short distance to the urban market and low transport costs. Rather, the fragmentation of holdings close to the crowded inner town, where competition with the housing market and industry and service sectors mattered, made urban cultivators, professional or not, focus on high-yielding horticultural production.

The most striking observation is that very few urban households had access to land, and that the available land was very unequally distributed. Only about 10 per cent of all households living in the two towns held any land at all, and more than half of that was in the hands of the tiny fraction of people using it professionally as farmers or gardeners. Today, as in the past, access to land in densely populated urban cores can be a major constraint, restricting the role of urban farming to certain niche products while staple food production takes place elsewhere. The concentration of land that we observed also raises the question of what we expect from urban farming: mainly the reduction of food miles (which is compatible with land concentration), or also farming as a means to provide households with cheap access to food, as well as a form of leisure activity (which would require a rather broader distribution of land). These are important issues to consider when discussing the possible benefits of urban farming today.