

Hidden in Plain Sight:

Exploring the impact of the COVID-19 crisis
on small farms in the UK and resourcefulness



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By: Cristina Biddlecome
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Supervisors: AGM (Anke) de Vrieze MSc
and MH (Mustafa) Hasanov Ph.D.
Rural Sociology Group (RSO - 80436)

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Abstract

Having revealed the fragility within long supply chains, the COVID-19 crisis provides the grounds for reflection and food systems change. This research explores the possibilities and challenges of small farms in the UK during the COVID-19 crisis through a resource lens. Conducted remotely, this research adds to the fast-growing literature assessing the impacts of the pandemic on different parts of food systems, one that often calls for resilience-building. By drawing on the literature that creates space for genuine alternatives to neoliberal strategies in response to food systems in crisis, I explore how 'resourcefulness' can be cultivated by small farms beyond the pitfalls of resilience. The members of small farms used their acclamation to the precarity of everyday life as social entrepreneurs to meet the challenges presented by the COVID-19 crisis rapidly; however, they often did so at the cost of their mental and physical wellbeing. Even when considering themselves resilient, producers were merely surviving, or in resilience-thinking terms, 'bouncing back' from the shocks of the crisis. To improve the position of small farms in the larger food system, more direct home consumption from shorter supply lines, accountable food governance at all levels, and a stronger culture of food citizenship are urgently necessary, and increasingly so in the face of crisis. Decision-makers, citizens, and NGOs working in the spheres of food justice and governance all have a role to play in supporting grassroots growers towards cultivating resourcefulness.

Keywords: COVID-19, food systems, small farms, resilience, resourcefulness

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Glossary

(Enabling) resources: refers to the wide array of assets, both tangible and intangible, social entrepreneurs mobilize and co-create, to launch and bring forward novel initiatives in their places (Moriggi, 2020).

Resilience: a concept which describes the capacity of individuals, organizations and complex systems to ‘bounce back’ to a state of stability following a disturbance as well as the potential for ‘bouncing forwards’ through forms of transformative growth triggered by adversity (Ames & Greer, 2021).

Resourcefulness: an alternative to resilience; a concept that emphasizes local autonomy, self-determination and the development of the capacity to shape and ultimately transform the wider environment in a way that both addresses local issues and appreciates systemic challenges (MacKinnon & Derickson, 2013).

Self-determination: “captures a more democratic, outward-looking, and realistic conception of how communities might actually achieve more democratic self governance in comparison to self-reliance” (MacKinnon & Derickson, 2013: 19)

Small farms: involve a degree of self-provisioning at the individual, household, or local level; employ labor-intensive techniques applied more often by family or household laborers; adjust their activities to sustain the ecological base in their locality; are rooted in community connectedness, and play a key role in creating local autonomies from global flows of capital compared to large-scale food producers (Smaje, 2020).

Social entrepreneurship: signals the imperative to drive social change and provide lasting, transformational benefits to society (Martin & Osberg, 2007).

1. Introduction

Prior to the COVID-19 crisis, long-term stressors have eroded the resilience of food systems globally, making them even more susceptible to shorter-term shocks like the pandemic (Bellamy, et al., 2021). The COVID-19 crisis has only highlighted existing vulnerabilities within the food system, including the dominance of a small pool of retailers and producers, dependence on imported food and labor, and increased reliance upon emergency food aid (Garnett, et al., 2020 in Bellamy, et al., 2021). At the onset of the pandemic, panic-buying led to stockpiling and supermarket shelves were left bare (Power, et al., 2020). This initial panic was especially palpable in the UK, where the mainstream food system is characterized by “vast sectors of just-in-time food logistics and reliance upon large imports of fresh produce from the European Union” (Lang, 2020: 72), creating particular susceptibility to supply chain disruption.

While the threat of prolonged food shortage has passed, chronic food insecurity underpinned by precarious socioeconomic conditions continues to be exacerbated by the pandemic (Pereira & Oliveira, 2020). The dimension of food security most affected by the COVID-19 crisis is access to food, particularly for populations within urban areas (Béné, et al., 2021). The COVID-19 crisis has intensified injustices experienced by those who were already vulnerable to the current shortcomings of the food system. In the UK, it is estimated that the number of people experiencing food insecurity quadrupled due to the COVID-19 pandemic; this has been attributed to a lack of food in shops, economic impacts, and isolation. While the pandemic has exacerbated food insecurity for those already struggling, it has also created new vulnerabilities through lost income or work (Loopstra, 2020 in Bellamy, et al., 2021).

Alongside the consumers facing food insecurity stand the small-scale food producers who have been impacted by the COVID-19 crisis. Prior to the pandemic, the position of small farms within the mainstream UK food system has become increasingly marginal with ever-larger supermarket chains setting their preferences for big suppliers who can provide at scale (Lang, 2020). Large horticultural firms have become the gatekeepers to domestic retail, and with only 16% of the food consumed in the UK being homegrown, nearly half of English domestic primary producers are no longer financially viable (Ibid). Culturally speaking, food labor in the UK is undervalued and

regarded as low-waged work, and subsequently, the number of laborers on agricultural land continues to shrink. Within this context, small farmers at the onset of the pandemic were already conditioned to face the precarity of everyday life and met the challenges of the COVID-19 crisis rapidly (Bellamy, et al., 2021). Despite the flexibility demonstrated by producers, government failure to invest in the horticultural sector is expressed by the frustration of growers who continue to feel under-appreciated by decision-makers (Ibid).

Given the state of food insecurity highlighted by the pandemic, this can be seized as a moment to “build food systems back better and achieve improved health, sustainability, [and] inclusion plus resilience” (McDermott, 2021 in Béné, et al., 2021). Following times of crisis, resilience becomes an imperative: it is “a practice of flexibility and adaptation deemed necessary for surviving what are imagined to be unavoidable crises” (Ames & Greer, 2021). While the nature and extent of the COVID-19 crisis is rare, extreme climatic events will increase in magnitude and frequency, threatening similar societal impacts. It is therefore critical to identify mechanisms for developing food systems that are resilient to such impacts (Bellamy, et al., 2021). However, resilience, a term with its roots in ecological systems thinking, has sustained criticism when applied to social relations.

The concept of resilience was first coined to describe the potentiality for stability or equilibrium in ecological systems and has since been applied to social relations to “understand the potential for adaptation in the face of an unpredictable challenge or ‘shock’” (Walker and Cooper, 2011 in Ames and Greer, 2021). Resilience in a social context takes many shapes. While some agents refer to ‘good (G)’ resilience as ‘bouncing back’ (BB-G) from crisis or returning to normal, others go further to suggest ‘bouncing back’ *and* system transformation (T) as desirable (BB-T-G) (Olsson, et al., 2015). Following the departure from merely ‘bouncing back’, MacKinnon & Derickson (2013: 263) go on to describe resilience as “inherently conservative insofar as it privileges the restoration of existing systemic relations rather than their transformation”. The highly influential paradigm of resilience-building has served to rationalize and naturalize the redistribution of responsibility for social and systemic problems from the state to communities and individuals (Ames & Greer, 2021). This

critique of resilience calls for a renegotiation of the term, or as MacKinnon & Derickson (2013) propose, a move toward resourcefulness.

Resourcefulness, as an alternative to resilience, can be interpreted as a concept that emphasizes local autonomy, self-determination, and the development of the capacity to shape and ultimately transform the wider environment in a way that both addresses local issues and appreciates systemic challenges (MacKinnon & Derickson, 2013). Building on the fast-growing literature assessing the impacts of the COVID-19 crisis on different parts of food systems, this research draws upon comprehensive resources and resourcefulness to explore the possibilities and challenges of small farms during this time of crisis, including its implications for resilience thinking. To do so, I use the following research question, guided by three sub-research questions:

1. How have small farms in the UK navigated the COVID-19 crisis?
 - a. *What are the disruptions that small farms have faced?*
 - b. *How have small farms been responding to these disruptions?*
 - c. *What is the (ongoing) aftermath of the COVID-19 crisis for small farms?*

Alongside the ongoing impacts of COVID-19, food systems will suffer other crises in the future such as extreme climatic events, leading to similar societal impacts around the world (IPCC, 2019 in Bellamy, et al., 2021). It is, therefore, crucial to understand how the current global pandemic is affecting food systems and learn from the responses of actors within the system so that reactions to future crises can promote just and sustainable outcomes. Further, the disruptions created by COVID-19 open opportunities for less-powerful actors, such as small farmers, to nudge the regime towards desirable longer-term outcomes: namely, food systems that are sustainable, just, and inclusive (Pereira et al. 2020; UN 2020 in Bellamy, et al., 2021). That being said, the small farms involved in this research provide the starting point to explore such transformations in the food system.

The following section of this report contains a conceptual framework that explores the parameters of small farms, food producers as social entrepreneurs, comprehensive resource sets, and the concepts of resourcefulness and resilience. This leads to my methodology, which underpins this remotely-conducted research. Next, the findings of this research are organized in line with the three sub-research questions mentioned

above: namely, the story of disruptions to small-scale food producers in the UK during the COVID-19 crisis, their response to these disruptions including the mobilization and creation of resources, and the ongoing aftermath stemming from it. Finally, the discussion will dive into resourcefulness and small farms during the pandemic, followed by implications for resilience thinking and the position of small farms in the larger UK food system.

2. Conceptual Framework

2.1 Introduction

Having revealed the fragility within long supply chains, the COVID-19 crisis provides the grounds for reflection and food systems change. Food insecurity is growing and being exacerbated by the ongoing global pandemic. Several alternatives to long food supply chains, including small farms, can be explored as another means to access food. Building on constructions of resource use and resourcefulness, this conceptual framework will explore the possibilities and challenges of small-scale food production during this time of crisis, including its implications for resilience. I follow the story of small farms in the UK and how they have been impacted by the COVID-19 crisis through the lens of resource mobilization and creation. Going beyond resilience as it is traditionally understood, this research proposes a move toward the cultivation of resourcefulness within individuals and communities to face the precarity of crisis and everyday life.

2.2 What are small farms?

The subjects of the case studies in this research are small farms and market gardens in the UK. Therefore, I begin this conceptual framework with an exploration of small farms and their parameters. In order to do this, I follow the thinking of Chris Smaje, a farmer and sociologist who advocates for agrarian localism. In doing so, Smaje does not propose cutoff points by acreage to define small farms, rather, small farms play a key role in creating local autonomies from global flows of capital; involve a degree of self-provisioning at the individual, household, or local level; employ labor-intensive techniques applied more often by family or household laborers than salaried workers; adjust their activities to sustain the ecological base in their locality that underpins their productivity, and tend to operate in a de-commodifying (but not necessarily un-commodified) way compared to large farms (Smaje, 2020: 9). Concepts of the 'local' or 'locality' are present within the features outlined above, and on this point, it is also useful to reject delineations that displace the need to define the 'small' into a need to define the 'local'. In line with smallness, the local "isn't a matter of prior definition, but emerges from how autonomies and self-provisioning are achieved in practice" (Ibid). Autonomy and self-provisioning vary in practice, but for example, can take the

shape of community connectedness, flexibility within the organizational culture, and versatility in food distribution and procurement.

Within this research, selected farms and market gardens vary from one to seventy acres in size and may employ anywhere from zero to fifty laborers in a given season. While some cases rely upon larger networks of food procurement via wholesale or local producers, others source their food explicitly on-site for direct sale to a smaller customer base. Regardless of these differences, I have chosen to call the producers involved in this project 'small' in line with Smaje's description of farms that create local autonomies from global capital flows and involve a degree of self-provisioning within their practices. As the local also emerges from how autonomies and self-provisioning are achieved in practice, the labels 'small', 'small-scale', and 'local' are used interchangeably in this project and are not self-prescribed by the producers involved in this research. Alongside smallness, I dive into the concept of food producers as social entrepreneurs within their initiatives.

2.3 Food producers as social entrepreneurs

In order to explore the concept of social entrepreneurship, it is useful to begin with the word "entrepreneurship" itself. According to Martin & Osberg (2007:30), who come from a business background, the word entrepreneurship connotes "an innate ability to sense and act on opportunity, combining out-of-the-box thinking with a unique brand of determination to create or bring about something new to the world". In other words, entrepreneurs are believed to have "an exceptional ability to see and seize upon new opportunities, the commitment and drive required to pursue them, and an unflinching willingness to bear the inherent risks" (Ibid: 31). As opposed to the entrepreneur, the *social* entrepreneur neither anticipates nor organizes to create substantial financial profit. Instead, social entrepreneurship signals the imperative to drive social change and provide lasting, transformational benefits to society.

Placed in the context of farming and agriculture, pressures toward entrepreneurialism have been increasingly pronounced for producers themselves (Pyysiäinen, 2011). Many aspects of an entrepreneurial agency, such as autonomy, personal initiative, and achievement orientation, are familiar to farmers and their own activities. However, the

construction of entrepreneurial agency in the farm context encounters many obstacles, including the social, institutional, and cultural contexts in which they are embedded (ibid). “Like all forms of change agency geared towards social innovation, desired outcomes—specifically in terms of effectiveness and sustainability of the entrepreneurial process—are not always met in reality” (Alvord et al. 2004 in Moriggi, 2020: 437). Therefore, for the purpose and scope of this research, producers and other key respondents involved in the everyday activities of the farms and market gardens are considered social entrepreneurs on the basis of their potential (whether substantial or latent) to drive social change within their local food systems.

In her work with place-based social entrepreneurship, Moriggi (2020) finds that understanding resources is paramount to grasping the possibilities and challenges of place-based entrepreneurship. The ‘place-based’ prefix here refers to social entrepreneurs that contribute to processes of socio-economic transformation and respond to unmet sustainability challenges within their novel place-based initiatives. The prominence of place is further pronounced given that the “role of resources in constraining or enabling the development of social enterprises holds important implications not merely for the initiatives, but also for the places where they are embedded” (ibid). A closer look at comprehensive resources sets and how they are mobilized (and created) by social entrepreneurs can be seen in the following section.

2.4 Comprehensive resources

Enabling resources refers to the wide array of assets, both tangible and intangible, social entrepreneurs mobilize and co-create, to launch and bring forward novel initiatives in their places (Moriggi, 2020). The assets, skills, affordances, and capital needed by change agents to foster transformations are conceptualized in various ways, and Moriggi proposes nine sets of (enabling) resources grounded in data collection and analysis pertaining to green care practices. The case studies selected for my research underpin their production practices with consideration for the ecological base that sustains their activities (Smaje, 2020); given their attention to ‘green care’ within farming, I draw upon Moriggi’s comprehensive resources and adapt them to a different, albeit comparable, context.

The nine sets of (enabling) resources proposed by Moriggi to explore the possibilities and challenges of place-based social entrepreneurship are divided into the following levels for ease of generalization beyond the green care context:

Level 1: Structural
1) Infrastructural resources 2) Institutional resources

The structural level is divided into infrastructural and institutional resources. Infrastructural resources refer to “two subsets of structural conditions: physical infrastructures such as roads, electricity grid, and sewage systems, and non-physical infrastructures, namely the presence of a welfare system and the free market” (Moriggi, 2020: 447). Institutional resources are “clustered to include ‘rules’ (laws and regulations), ‘norms’ (standard procedures and practices), and ‘beliefs’ (cognitive attitudes, collective meanings and values)” (Ibid). Resources on this level can provide a richer picture of the context in which case studies are embedded beyond the individual and community levels.

Level 2: Organizational
3) Material resources 4) Organizational culture-related resources

The organizational level includes material and organizational culture-related resources. Material resources refer to “assets that are crucial to the daily operations of most companies or farms” (Moriggi, 2020: 448). This can be divided into non-living assets, such as facilities and equipment, and time and financial capital. While crucial to the operation of social entrepreneurs’ daily activities, these resources tend to be constraining in character. Organizational culture-related resources refer to norms and attitudes which reflect a specific organizational culture, and a certain way to interact

and operate in an organized setting within the entrepreneurial activity, be it farming or otherwise (Ibid).

Level 3: Eco-social community
5) Place-specific resources 6) Social resources

The eco-social community level includes place-specific and social resources. When it comes to place-specific resources, they can include living ecosystems that characterize a place as well as the physical and mental attributes conducive to a shared resonance regarding place. Social resources entail networks, relations, social ties, and human beings crucial to the daily operation of the farms and market gardens involved in this research. As opposed to material resources, resources at the eco-social community level tend to be enabling in nature.

Level 4: Personal
7) Ethical resources 8) Affective resources 9) Competence-related resources

The (intra and inter) personal level includes ethical, affective and competence-related resource sets. To begin, interpersonal, or relational, resources involve two or more persons, while intrapersonal, or individual, resources take place at a level within the self. Ethical resources can either be individual values towards humans and ecosystems driving entrepreneurial agency, or shared values nurturing social ties (Ibid: 446). As opposed to the values outlined within ethical resources, affective resources encompass emotional and sentiments attached to places, practices, and people. Finally, competence-related resources are quite apt for the study of social entrepreneurship as they include the abilities and skills gained through education, professional, and lived experience. These competences are further broken down into: entrepreneurship and

management skills, technical abilities and competences, social skills, and cultural competences. Resources at the personal level, especially intrapersonally, tend to be more intangible in nature, making them all the more important to highlight within this comprehensive resource set.

There is much to be learned and understood about social entrepreneurship, including its role in place-based transformation and questioning unequal access to resources. Furthermore, the recognition of resources mobilized and created by social entrepreneurs to create novel place-based initiatives has been historically narrow in scope, with a lack of attention to intangible and relational resources; ones that prove to be particularly enabling to the daily operation of social entrepreneurs following Moriggi's work. Exploration of resource use tends to take place against a backdrop of resourcefulness. The difference between these concepts and how they relate to building resilience in the face of precarity are examined in the following section.

2.5 From resilience to resourcefulness

Following times of crisis, resilience becomes an imperative: it is “a practice of flexibility and adaptation deemed necessary for surviving what are imagined to be unavoidable crises” (Ames & Greer, 2021). The concept of resilience was first coined to describe the potentiality for stability or equilibrium in ecological systems and has since been applied to social relations to “understand the potential for adaptation in the face of an unpredictable challenge or ‘shock’” (Walker and Cooper, 2011 in Ames and Greer, 2021). Resilience in a social context takes many shapes. While some agents refer to ‘good (G)’ resilience as ‘bouncing back’ (BB-G) from crisis or returning to normal, others go further to suggest ‘bouncing back’ *and* system transformation (T) as desirable (BB-T-G) (Olsson, et al., 2015). Following the departure from merely ‘bouncing back’, MacKinnon & Derickson (2013: 263) go on to describe resilience as “inherently conservative insofar as it privileges the restoration of existing systemic relations rather than their transformation”. The highly influential paradigm of resilience-building has served to rationalize and naturalize the redistribution of responsibility for social and systemic problems from the state to communities and individuals (Ames & Greer, 2021). This critique of resilience calls for a renegotiation of

the term, or as MacKinnon & Derickson (2013) propose, a move toward resourcefulness.

It is worth mentioning that resourcefulness, like resilience, has the potential to become co-opted by neoliberal priorities insofar as neoliberalism “emphasizes the desirability of entrepreneurial individuals and communities who ‘take charge’ of their own destinies without making demands on the state” (Ames & Greer, 2021:2). These conditions assume that idealized individuals possess the ability and capacity to shape a better future while living in circumstances conducive to transformation (Kelly, 2017 in Ames & Greer, 2021). Given the potential pitfalls of both resilience and resourcefulness, it is not merely a shift in language that is desirable here, but a sustained criticism on the proliferation of alternative terms used to describe an individual’s capacity to drive transformation.

Resourcefulness, as an alternative to resilience, can be interpreted as a concept that emphasizes local autonomy, self-determination, and the development of the capacity to shape and ultimately transform the wider environment in a way that both addresses local issues and appreciates systemic challenges (MacKinnon & Derickson, 2013). Taking local issues and systemic challenges into account, resourcefulness departs from the objective of self-reliance, instead advocating for self-determination, which acknowledges the ways in which places, spaces, and communities are inherently relational and interconnected in ways that can be both enabling and constraining. To summarize, a sharper distinction between resilience and resourcefulness and what each concept entails can be seen in Table 1.

Resilience	Resourcefulness
Externally-defined imperative (top-down); greater resilience of the system defined by external experts and policy-makers	Internally-defined imperative (bottom-up); democratic self-determination as a fundamental starting point, emphasizes forms of learning and mobilization based upon local priorities

Emphasizes self-reliance	Emphasizes self-governance
Privileges existing social relations without taking into account local issues or systemic challenges	Problematizes uneven access to material resources and the inability of disadvantaged groups to access the levers of change
Frames multifold crises as unavoidable consequences of globalization	Contends that the burden should not fall on local actors and communities to further adapt to the logic and implications of global capitalism and climate change

Table 1. Resilience vs. resourcefulness adapted from (MacKinnon & Derickson, 2013).

Furthermore, four key elements can be used to understand the concept and practice of individual and community resourcefulness (Ibid):

(1) *Resources* - rather than functioning as an internal characteristic of a community, resourcefulness is a material property and a relational term that seeks to problematize the often profound inequalities in the distribution of resources; include not only organizing capacity, spare time and social capital, but also public- and third-sector resources and investments on a par with the wealthiest communities.

(2) *Skillsets and technical knowledge* - communities with expertise in governmental procedures, financial and economic knowledge, basic computing, and technology are much better positioned to take nuanced positions on public policy issues, as well as to propose policies and imagine feasible alternatives and the concrete steps necessary to enact those alternatives.

(3) *Indigenous and ‘folk’ knowledge* - alternative and shared ways of knowing generated by experiences, practices, and perceptions are important spaces of knowledge production about the world.

(4) *Recognition* - promotes a sense of confidence, self-worth, and self and community affirmation that can be drawn upon to fuel the mobilization of existing resources and argue for and pursue new resources.

It is the interrelations between the four dimensions and their relation to a democratic politics of self-determination, independent of the imperative of external forces, that distinguishes this concept of resourcefulness (MacKinnon & Derickson, 2013). When placed in the framework of knowledge generation and resource mobilization and creation, the concept of resourcefulness mirrors Moriggi's (2020) interpretation of comprehensive resources for social entrepreneurs while building on the element of recognition. Used together, comprehensive resources and resourcefulness can provide a rich picture of how the social entrepreneurs involved in this research drive transformation through their initiatives with consideration for local and systemic challenges in the face of the COVID-19 crisis.

3. Methodology

3.1 Research approach and relevance

By exploring small farms through a resource lens, this research aims to better grasp the possibilities and challenges of small-scale food production during times of crisis. To do so, this qualitative research project draws on case studies as the research approach to explore resourcefulness and the mobilization of resources in depth. The subjects of the case study are small farms and market gardens in the UK and the object is to trace the cultivation of resourcefulness within these cases during the COVID-19 crisis. The process involves a detailed look at small-scale food producers in the UK through remote research. For this purpose, the original data collection relied on semi-structured interviews conducted online with people who are involved in the everyday activities of the selected farms and market gardens. Further details of the selection criteria for the case study and data collection process can be found in the following sections of this methodology. To review, this research is guided by the following questions:

1. How have small farms in the UK navigated the COVID-19 crisis?
 - a. *What are the disruptions that small farms have faced?*
 - b. *How have small farms been responding to these disruptions?*
 - c. *What is the (ongoing) aftermath of the COVID-19 crisis for small farms?*

To date, comprehensive resource sets have been used to understand the role of resources in constraining or enabling the development of social enterprises, specifically within green care practices (Moriggi, 2020). These resources are assets that social entrepreneurs can mobilize or create while (ideally) contributing to sustainable socio-economic transformation through a place-based initiative. In the past, intangible and tangible assets crucial to social entrepreneurship have been underestimated in scholarship and have yet to be explored outside of green care practices (Ibid: 451). As a backdrop, resourcefulness has been defined as an act that emphasizes local autonomy, self-determination, and the development of the capacity to shape and ultimately transform the wider environment (MacKinnon & Derickson, 2013). To research the case studies outlined in the following section, I draw upon comprehensive

resources and resourcefulness to explore the possibilities and challenges of small-scale food production during this time of crisis, including its implications for resilience.

3.2 Case studies and data collection

In this research, case studies were found online via various local food producer umbrella organizations and directories including Bristol Food Producers, Community Food Growers Network (based in London), Cultivate Oxford, and Big Barn UK's Local Food Map. I contacted 38 farms, market gardens, and/or kitchen gardens to participate in this research on the basis of their relative smallness in scale and operation and commitment to providing food to the local community. Smaje (2020: 7) describes small farms as the possible (spaces) for personal autonomy, spiritual fulfillment, community connectedness, purposeful work, and ecological conviviality. When it comes to personal autonomy, small farms play a key role in creating local autonomies from global flows of capital compared to large-scale food producers - a consideration brought to the fore by the COVID-19 pandemic.

For the purposes of this research, I selected cases in alignment with two aspects of 'smallness,' namely, the capacity for personal autonomy from global flows of capital, and community connectedness. While other labels such as agroecological, organic, regenerative, biodynamic, and/or local could have been used to describe the food producers involved in this research, 'small' goes beyond arguments surrounding locality and sustainability in food production to encompass those who simply try to furnish needs from their own localities (Smaje, 2020: 9). Having said this, the cases in this research are not entirely representative of small farms as their relations stretch beyond the locality in which they are embedded, and some scales of operation exceed what is typically labeled as 'small.' Nonetheless, valuable insights can be gained from each of the following eight food producers who were willing to participate in this research. The cases can be found in Appendix A.

A map of the case studies involved in this research and their location within the UK can be seen in Figure 1:

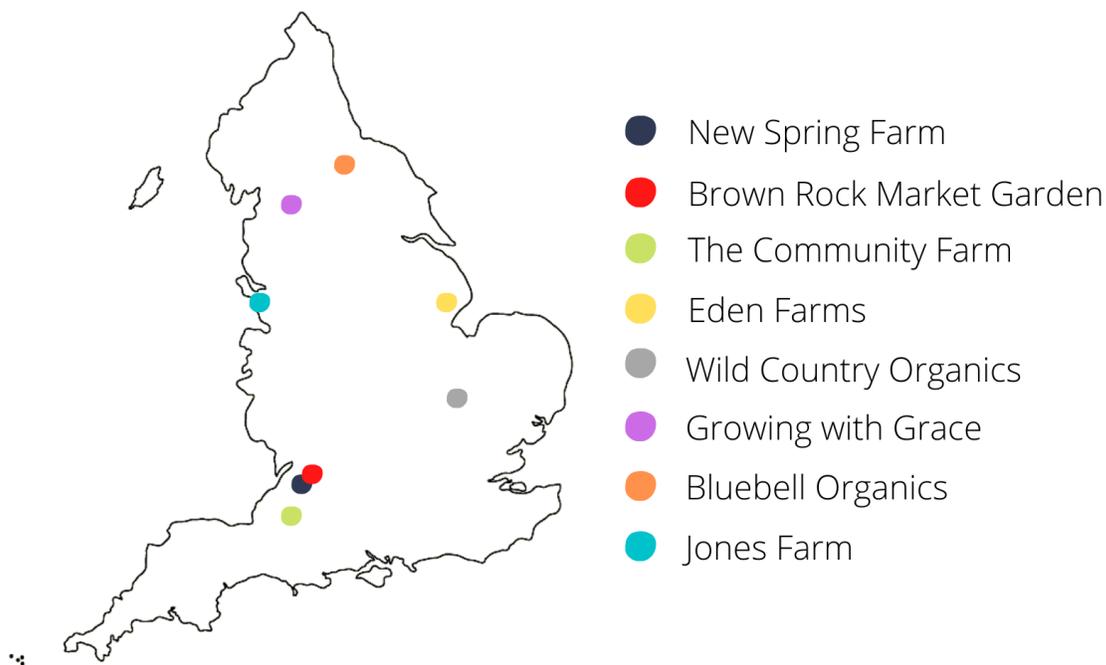


Figure 1. Case studies involved in this research and their location within the UK (Source: Author).

To research the case studies outlined in Appendix A, I conducted semi-structured interviews remotely due to the high risk of travel associated with the COVID-19 pandemic. As an outsider in the British context conducting interviews remotely, this research is a reflection of the stories told by the respondents and their experiences of the past year. The interviews took place either via video call or phone call with research participants involved in the everyday activities of the selected farms or market gardens. Semi-structured interviews were selected as the research method to ensure that resource use, resourcefulness, and resilience could be explored. The interviews ranged from thirty minutes to approximately one hour in duration; due to the timing of data collection (May-July 2020), many respondents were busy with the harvest season, and/or experiencing shortages in labor and could therefore not allocate a full hour to participating in this research; this was also a limitation in finding cases to participate in the research. I made use of Google Jamboard to elicit responses via video call with the

first two respondents: Ava Young of New Spring Farm and Kim Brooks of the Community Farm, surrounding the challenges they faced and their thoughts on resilience. I removed this method from the remainder of the interviews due to the time constraints of respondents and their inability to connect reliably to the internet at times given their remote locations. The content of the conversations was guided by the respondents' experiences of the events of the past year in relation to the COVID-19 crisis as can be seen in the interview guide below.

Outline of Interview Guide
<p>What has your experience of the COVID-19 crisis been like in the past year?</p> <p>How have you managed food distribution throughout the COVID-19 pandemic?</p> <p>Were there any unexpected opportunities that came out of the COVID-19 crisis?</p> <p>What are some of the main challenges you have faced during the COVID-19 crisis?</p> <p>What did you need to get through these challenges?</p> <p>Has anything remained unchanged throughout the COVID-19 pandemic?</p>

Table 2. Outline of interview guide used for this research

3.3 Data analysis

The interviews from this research were transcribed using Otter.ai and then revised for accuracy. I used the program Atlas.ti to create code groups, comments, and quotations. Following Moriggi's (2020) formation of comprehensive resource sets at different levels, I created the following code groups: 1) structural level, 2) organizational level, 3) eco-social community level, and 4) personal level. These levels are then divided into the following deductive codes for resource sets:

Code group 1: Structural level
<p>Infrastructural resources (22)</p> <p>Institutional resources (24)</p>

Code group 2: Organizational level

Material resources (45) Organizational culture-related resources (7)

Code group 3: Eco-social community level

Place-specific resources (3) Social resources (75)

Code group 4: Personal level

Ethical resources (4) Affective resources (16) Competence-related resources (11)
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When coding for groups 1-4, I made use of the comment feature on Atlas.ti to describe whether a resource seemed to have either an enabling or constraining character for the farm, or both. Following the coding of resource sets, there were 14 uncategorized codes that fit into more than one resource set or were not encompassed by the codes above. To structure my results chapter, I further coded the interviews for disruptions experienced during the COVID-19 crisis, reactions to these disruptions, and the resulting aftermath as can be seen below.

Code group 5: Disruptions (48)

Code group 6: Reactions (57)

Code group 7: Aftermath (54)

Resource sets as coded in groups 1-4 are woven throughout code groups 5-7 and guided me in structuring the Results chapter that follows.

3.4 Ethical considerations

The data collected and analyzed during this research project is being stored on my personal laptop and made accessible only to myself and my thesis supervisors. The details of the individual data management plan for this project can be found in Appendix B. Selected research participants entered this research with prior informed consent and interviews were only audio recorded for transcription with permission. While this research does not necessarily rely upon the collection of sensitive information, some respondents preferred to remain anonymous in this thesis report.

Given my positionality, I am biased toward favoring or commending farmers who use clearly-labeled organic, biodynamic, and/or regenerative practices. My aim in this research was to approach all (small) farms, regardless of their certified label or trust-based practices, without prejudice. Furthermore, I began the project with an explicitly social justice-oriented research question and approached the interview process as an interrogation of the farms' inclusivity in practice. After receiving some guarded answers from respondents regarding this subject, I changed my approach to a more open-ended conversation based on a general inquiry of the farmers' experiences of the past year. This change in interview style lent itself to the conversation about resource use, resourcefulness, and resilience. When taking ethics into consideration, it is also worth repeating that the concept of resilience tends to escape scrutiny regarding its lack of inclusivity and acknowledgment of systemic challenges in practice. This is a thread I began in the conceptual framework and pick up again in the discussion of this report.

4. Results

The following chapters are organized to tell the story of disruptions to small-scale food producers in the UK during the COVID-19 crisis, their response to these disruptions including the mobilization (and creation) of resources, and the ongoing aftermath stemming from it.

4.1 Disruptions

The producers involved in this research experienced disruptions within their usual lines of farmwork which have been divided into the following subsections: 1) facing a surge in demand for local produce, 2) managing food distribution in accordance with increased demand, and 3) procuring the necessary labor to continue operating throughout the pandemic.

4.1.1 Facing the demand

The year 2020 brought peculiar challenges and opportunities to small-scale food producers in the UK as they navigated the COVID-19 crisis alongside Brexit in a time that was, safe to say, unusual. In March of 2020, at the onset of the COVID-19 crisis in the UK, lockdown and reduced mobility led to the closure of many stores and restaurants. In an atmosphere of uncertainty, restrictions were shortly followed by panic buying and stockpiling in supermarkets. John Jones of Jones Farm reflects “there was a panic really because of the scare stories all over the place that there was going to be a shortage of food.” Similarly, Ellie Parker of Growing with Grace recalls that “there was a time when going to the shops was quite a scary experience and there wasn’t much available. People were getting frightened and quite aggressive.” Kim Brooks of the Community Farm mirrors these thoughts succinctly, “it was such a panic moment, and ultimately the reason the customers turned to us was because the supermarket shelves were empty.”

In the midst of panic surrounding the precarity of food supply, many eaters had no choice but to look closer to home for their daily intake of fresh fruits and vegetables. At the onset of the COVID-19 pandemic in the UK, small-scale food producers interviewed for this research uniformly experienced a sharp surge in demand for their produce. Cath Yates from Bluebell Organics remarks that “as soon as the lockdown

started, our orders went through the roof.” Kim Brooks notes that “before the pandemic, our average was about 550 boxes per week, and overnight that went up to over 900.” As alluded to above, this unprecedented surge in demand and sudden spotlight on small food producers was fueled in part by panic buying at supermarkets.

Whether located in remote rural areas, or in closer proximity to urban centers, small farms and market gardens became the only reliable source of fresh produce for many eaters. Ellie Parker marvels, “suddenly, we were at the forefront of everyone’s consciousness. People were thinking, just where am I going to get food from? We even had somebody offer us hundreds of pounds if we could deliver a veg box¹ somewhere three counties away. People were desperate for deliveries last year.” Demand for fresh food from local producers during this moment of crisis was driven not only by panicked supermarket regulars but by vulnerable and sheltering individuals. Those at the highest risk of suffering from the effects of the Coronavirus were forced into isolation, often in remote locations, thus relying upon delivery service from small farms to survive the height of the COVID-19 pandemic. Cath Yates explains that Bluebell Organics “had a lot of requests from people whose parents were isolating in quite remote places, and they obviously couldn’t visit them.” Customers wanted to help their parents by arranging a regular order, revealing the vulnerability behind the demand.

While the sheer rise in demand for fresh produce was surprising to these small-scale food producers, the specific products being ordered also proved to be exorbitant and out of the ordinary. At a loss, Carey Emerson of Eden Farms recalls that “the only time we ran out of something was with oranges. Everyone wanted oranges, and we could not figure this one out. It got so bad that we did take the oranges off the website as an option because people would just order 3 kilos at a time.” Kim Brooks mirrors the feeling with another product: “at one point we said we couldn’t take anymore. We needed to allow them to buy only one milk because milk was running out.” Orange and milk shortages are only a glance at the story of this panicked surge in demand for

¹ Bag and (veg) box schemes are a common way for community-run food co-ops to sell fresh produce. They involve selling a selection of different fruits and/or vegetables in boxes that usually come in a selection of sizes at different prices (Strange, 2016).

fresh produce from small and local producers - it would be incomplete without an exploration of the supply chains in which they are embedded.

4.1.2 Supplying the food

Alongside the rise in demand for their produce, small-scale producers in the UK experienced disruptions in the way they could buy, sell, and distribute food during the COVID-19 crisis. While small in definition, both for their acreage and ability to furnish needs from their own surroundings, the producers involved in this research provide food to their customers and members in a variety of ways.

To begin, Ellie Parker describes the change in wholesale purchasing at Growing with Grace: “February and March of 2020 was very chaotic and quite frightening in a way, because a lot of our suppliers were simply not able to get us supplies. Although we grow a lot of produce on the farm, we also buy other fruit and vegetables from wholesalers which go in our boxes and in the shop. We also buy dried goods and whole foods from a big national cooperative, so we started experiencing supply problems quite early on.” In his experience with wholesale, John Jones describes the details of disruptions to supply lines beyond the national context: “we source from wholesale markets in Liverpool, which is only maybe 15 miles away. Some prices, early on in April, went very, very high: things like broccoli, which was at that time being imported from Spain. There was plenty of product in the field, but they couldn't get enough harvesters to harvest the product. They struggled with drivers to drive the wagons, so that made things quite expensive.” Whether experienced locally or abroad, disruptions to supply lines altered the business-as-usual practice of food distribution.

Besides buying whole foods like fresh produce, or dried goods, small farmers and market gardeners also rely on supplies like compost and seeds to prepare for the growing season. During the COVID-19 crisis, many citizens turned toward home gardening which led to disruptions along the supply chain for small-scale producers. Kim Brooks recounts that “there was a massive surge in people attempting to grow their own...lots of people, including lots of amateurs who perhaps don't use compost very effectively, were buying loads of compost because they've never done it before. It was just hard to get those things for a while, and it depleted all of the stocks in them. So, normally there are stocks of those around, but last year they were depleted and

when it came to getting them for this year it was just much harder to get a hold of them.” Ava Young recalls a similar story when it came to buying seed during the COVID-19 crisis and coincidentally, Brexit: “It was more difficult to order seeds because there was so much demand and they became more expensive, which could also have something to do with Brexit. In the end, we managed to get them, but it was just more time-consuming and expensive.” Barriers to access for usual supplies were compounded by the simultaneous need to feed a growing number of customers.

Once farmers and market gardeners managed to grow and buy in their produce and other goods, they also faced challenges in selling their products and distributing food to those in need. While some producers already had vegetable delivery box schemes in place that could continue as usual, others needed to work around the restrictions of the COVID-19 crisis. John Jones elaborates: “we were doing mainly farmers markets and the farm shop, although the priority was farmer’s markets, but all the farmer’s markets got pretty well shut down. In fact, I think they all did, which is why I was very concerned about what the outcome was going to be, which is why we started the box scheme very quickly.” He continues, “the only usual aspect was when one or two markets began to return. But even then, there were restrictions on how we could trade. We had to be conscious continuously about sanitizing and stuff, so there was always that extra burden.” Given the burden and limitations associated with certain COVID-19 measures, having a diversified outlet for food proved all the more important.

The experience of closures and restrictions at farmer’s markets is echoed by Adrian Izzard: “Basically, we mainly do farmers markets now. We actually set a box scheme up, so people can order in London, because most of this is in London...within two days, we had a box scheme with online ordering set up to the website...earlier on before the pandemic really hit I thought they will not keep the markets open and get treated like proper central shops like supermarkets. So that was the first thing I did, was get lobbying done. And then when it started to hit, some markets started closing because some of the organizers kind of bottomed out and shut them. So then we set up a box scheme around Cambridge, and within two weeks we had all sorts of people [buying].” Carey Emerson dives further into the disruptions faced by stallholders at the farmer’s market: “they were only allowing so many into the market at one point...we continued at a much slower pace because I think they only allowed something like 10 people onto

the market at a time, customer-wise...it carried on, but things were slow.” In these cases, proactive attitudes for finding alternative food outlets were balanced with acceptance and patience.

While some producers turned to box delivery schemes due to the closure of farmer’s markets, others were grappling with the closure of restaurants as their primary source of revenue. Ria Marshall and Anna Barrett from Brown Rock Market Garden reflect on their journey at the onset of the COVID-19 pandemic: “We kind of decided to go with the trend and set up a box scheme, but that actually didn’t go well for us in this area. I think there are so many box schemes around here that it kind of hit saturation, I’m not sure, or we didn’t have a name for ourselves for doing that because that wasn’t what we did...we’re not set up exactly for a box scheme. Originally a lot of our produce was going to restaurants, but then actually what happened in the pandemic was that we found some new customers and the local shops started buying more because their sales, particularly fruit and veg, just went absolutely up.” The navigation of alternative food distribution outlets is something that will continue to be explored in the following section of the results chapter.

For box delivery schemes that came into fruition or were able to stay in place, there were also disruptions to how the food could be distributed to customers in a safe and reliable way. Ava Young describes the following challenge: “Two of our pick-up points, a farm, and a shop, were not open throughout the pandemic the way they had been so they weren’t as accessible to our members.” Producers faced varied challenges relating to food access and distribution stemming from a surge in demand for their produce; these disruptions ranged in intensity depending on the team of people and system of operation in place. Ultimately, practices in food growing, purchasing, and distribution are sustained by human effort. The impact on the workers who are intimately connected to these shifting food webs - in other words, the people with their feet on the field and hands in the soil - are the next to be explored in this story of disruptions.

4.1.3 Coming to work

The COVID-19 crisis, compounded by Brexit, led to many disruptions in labor and volunteer configurations within the farms and market gardens involved in this research. Due to the social distancing measures, restrictions within indoor meeting

places, and changes to immigration policy implemented within the UK in the past year, many producers were faced with challenges regarding the human power needed to grow and deliver food.

“So should I be coming to work?” This is a question Carey Emerson asked herself at the onset of the pandemic. She explains, “I had two elderly relatives to look after. So long story short, I was forced by my family to go into isolation for six weeks. Two other members of the staff did the same thing. That was a very hard decision for all of us because we knew we were leaving the farm in a bad situation. Who's going to cut these vegetables and do all the paperwork?” Eden Farms was not alone in confronting this obstacle. Cath Yates mentions the importance of volunteers at Bluebell Organics in the previous years, and how that changed in 2020: “We used to have a lot of WWOOFers² here, but the year before last, I think it was Brexit, we hardly got anybody. Last year, obviously, we couldn't have people. And this year, we're not sure whether we're going to do it again or not because it's great to have the extra labor, it really is, and it's great to have the people about. But in terms of efficiency, it's perhaps not as productive as I thought it was.” This reflection on volunteer labor highlights the contradictions present within certain disruptions faced by farmers, as they presented both opportunities and challenges.

As Cath Yates alludes to above, changes to labor and volunteer efforts do not paint such a black and white picture of the COVID-19 crisis' impact on small-scale farmers, which is further compounded by the effects of Brexit in some cases. She continues by elaborating on this paradoxical feeling of peace and isolation: “It's hard actually, we could do with a bit more labor. But as I say, it has its advantages as well. I think there's a sort of...it was so quiet, wasn't it, and restricted socially during the lockdown? I think we've changed our way of being to sort of adjust to that. I think we quite like just having it to our ourselves. I think that would be quite a big thing to change now, because it sort of became our little refuge from all the horrible things that are going on in the world.” Cath's reflection on the peace derived from sudden isolation goes to show how the disruptions faced by producers during the COVID-19 crisis hold the potential to become the new 'normal.'

² WWOOF, or World Wide Opportunities on Organic Farms, is a loose network of national organizations that facilitate homestays on organic farms; the term WWOOFers refers to the volunteers within these homestays (WWOOF, 2021).

While the COVID-19 crisis limited the number of volunteers and workers allowed on the field for farmers who rely on domestic labor, Brexit's restrictions on immigration created issues for growers who work alongside salaried workers from abroad. Put simply, Adrian Izzard admits that Brexit had a massively larger impact on his farm than the COVID-19 crisis. He states that "labor [shortage] is much more important than COVID...so, although it's profitable, we just haven't got the people...we've got 25 people on the farm now, we need 35, and we could easily employ 50." Adrian's vision of the ideal labor force for his farm brings attention to some scales of operation exceeding what is typically labeled as 'small' within this research. However, the unforeseen circumstances which led to downsizing for Wild Country Organics's labor force are reminiscent of the experiences of other farms involved in this research.

It is clear that disruptions to employment, the distribution of workload, and accessibility to external labor were experienced in varying degrees of severity by the small-scale producers involved in this research. Ria Marshall bears the brunt with shreds of optimism: "It's funny because every year in farming is so different and it feels like there is always something out to get you, and it felt like COVID was just another one of those things. When you're on the field and on your own most of the time anyway, you almost forget some of the times, because you're in the farm bubble...it's been amazing just to have work. The first lockdown was particularly hard for me because we had two phases. In the first one, I just put my head down and worked, and the whole of the UK had a holiday. It felt like the 1920s, people were just promenading around in the evenings, and I had my head down and got quite stressed. In the winter, I stopped working and everyone else was quite miserable by then." Feeling grateful for having work and providing food to others is a feeling mirrored by Cath Yates as she describes that "there are quite a lot of aspects of the past year that I think were very positive for us, like feeling useful, and getting that positive feedback, and having something busy to do and the fact that the rest of the world had gone to sleep, really, so you were driving around in a permanent Sunday morning of traffic, which was wonderful." These insights demonstrate how disruptions faced by farmers during the crisis can be construed as opportunities.

Disruptions experienced by the producers involved in this research are riddled with paradox, as is the nature of a crisis and its ensuing volatility. Both opportunities and

challenges were experienced when it came to meeting the demand for local food driven by panic and instability in conventional food supply. The ways in which the farmers, market gardeners, and other members at the forefront of the initiatives involved in this research responded to disruptions in food availability, supply, delivery, and human power needed to address an unprecedented surge in demand for their produce are outlined in the following section.

4.2 Responses

The previous section outlined the disruptions small farmers across the UK faced at the height of the COVID-19 crisis. Given the volatile nature of farmwork, producers are quite used to dealing with disruptions. Ria Marshall from Brown Rock Market Garden highlights this idea with the following “it’s funny because every year in farming is so different and it feels like there is always something out to get you. It felt like COVID was just another one of those things.” This section will highlight the food producers’ responses to the adverse, and sometimes opportune conditions of the past year through the lens of resources.

[Enabling] resources, both tangible and intangible, that social entrepreneurs mobilize or create to bring forward novel initiatives in their places can be divided into four levels: structural, personal, organizational, and eco-social community level (Moriggi, 2020). The following subsections are organized according to three of the four most prominent levels at which resources were mobilized by the producers involved in this research; infrastructural and institutional resources at the structural level have been omitted as they were not explored in-depth, however, a glance at these resources and what they entail can be seen at the end of this section.

4.2.1 Personal Level

The (intra and inter) personal level includes *ethical, affective, and competence-related resource sets*; each will be described in turn throughout this section. To begin, producers involved in this research were able to mobilize *ethical resources* when responding to the disruptions of the COVID-19 crisis, specifically individual values towards other humans and shared values nurturing social ties based on the principles of solidarity and reciprocity.

As a community-owned social enterprise, the members of the Community Farm are central to its operation. Kim Brooks describes how members expressed their desire to help the Community Farm at the height of the pandemic: “almost immediately customers were saying ‘can we give anymore? Do you need anymore help?’” Out of solidarity for those in need of fresh produce during the pandemic, the farm set up a COVID fund where “the customers could add on a donation when they bought their box that [the farm] would then gather and give to charities, organizations, groups, anyone that would be disadvantaged due to the pandemic.” By mobilizing the shared values of its members to service the larger community, the producers were able to donate food and work with groups who come onto the land and benefit people in terms of mental health through the fund. Kim Brooks reflects that the members of the Community Farm tend to be “people who are willing in life, and are more than happy to put a bit more money in it because they know we’re going to do something good with it.” The ability to mobilize this ethical resource is ultimately rooted in the trust and respect between producer and community member: “they trust us, they respect us, and they want to be a part of that, so they’re happy to pay it forward in that way. I think we’re just going to continue doing that, to enable people to give in that way.”

Following the power of solidarity, the members of Eden Farms kept a non-profit veg box open to provide customers with food at a lower cost. The box was able to be subsidized by the influx of new customers paying for larger boxes at a higher cost. In this case, the individual values of the owners towards the well-being of their members allowed for a mutually beneficial response that could feed those in need while keeping the farm afloat financially. In another case, the shared values nurturing social ties within Growing with Grace, a community cooperative farm and social enterprise, meant that “customers were really appreciative of the fact that [the farm] didn’t ever stop at any point.” Similarly, Kim Brooks describes the customers of the Community Farm as people were simply grateful that “they could get a source of fresh fruit and veg delivered to their door, they didn’t have to leave their house and they could get good food, and it was local, and it was organic, and it came from a social enterprise that then was going to give the community benefits, it was all just bonuses. So then when we told them they could only get one of ‘this’, or that their delivery time had changed, they were very sympathetic. They were just thankful to be getting food at all. They

would ask their kids to make thank you cards to leave on the steps.” The intangible nature of an ethical resource makes it easy to underestimate, but the shared values that tie producers and their members together softened the impacts of the COVID-19 crisis.

Similar to ethical resources, *affective resources* are emotions and sentiments attached to places, people, and practices. The sentiments of producers regarding their practice can often serve as an intangible resource to maintain motivation during a moment of crisis. Carey Emerson states directly: “Eden Farms is very optimistic. I’ve worked here for over 30 years now, and if you’ve got an organic farm you’ve got to be optimistic.” Refreshingly, sheer optimism is a resource to mobilize in the face of unprecedented change. Adrian Izzard of Wild Country Organics shares a similar sentiment about his job as a farmer: “I would like for people to realize that agriculture is something where people can make money. It’s a healthy job, and they’re outside. It’s a much more positive job than any of those office-based jobs.” Paradoxically, it is this very drive and conviction that can lead a farmer to burnout. For this reason, Ria Marshall and Anna Barrett from Brown Rock Market Garden make sure to integrate their artistic backgrounds and creative sentiment toward food production into their practice: “it’s very important every so often to take an hour or so just to take some nice photos or do something fun and creative, not strictly farming and recognizing the importance of that. Not working all hours of the day, which a lot of farmers do. Streamlining in order to have a bit more space around the edges.” With optimism, they add: “I think this year it will work.”

The final resource at the personal level is *competence-related* and refers to the abilities and skills gained through education, professional, and lived experiences. Producers involved in this research were able to mobilize their competences, whether channeled through hindsight or foresight, to respond to the disruptions of the crisis. John Jones of Jones Farm used his entrepreneurial skills in foresight to anticipate the effects of the COVID-19 pandemic. He explains: “right from the start, in March really, I could see that there were going to be problems, so we started a box scheme very early on.” Similarly, Adrian Izzard used his skills as an entrepreneur and made the decision early in the spring of 2020 before the pandemic hit to buy biodegradable plastic mulch in bulk

because he predicted that there would be inflation on it. These decisions, derived from lived experience in the field, served to ease the burden of the crisis.

Ria Marshall and Anna Barrett used hindsight in their entrepreneurial and management skills to streamline their crop plan. Having diversified their crop plan in the season of 2019, they decided to choose some key lines for 2020. They explain: “you’re always reluctant to change your crop plan too much, but having been forced to change it quite a lot I feel that has left some space to change things. I think it’s great that we diversified so much of our crop round last year to teach us that we absolutely don’t want to do that.” To make it easier to respond to the volatile circumstances of the COVID-19 crisis, they will continue on the route of choosing only a handful of vegetables to grow in the future.

Reflecting on management skills in hindsight and applying them to the peculiar circumstances at hand also helped the producers at Bluebell Organics to cope with the COVID-19 crisis. Intending to retire before the pandemic hit, Cath Yates explains that “for various reasons, but certainly not least, because of the pandemic, we’ve decided to carry on for another three years. I think we’re approaching it in a different way now, because we learned so much just about running the business last year that we wanted to carry that forward. I think [we’ve learned] things about systems of working and prioritizing planning, we had to just get really good at that really fast. And before that, I think we were fairly laid back because we could manage.” Efficiency, and the speed that comes with it, is also a competence developed by the members of the Community Farm. Kim Brooks reflects that “during the pandemic we started packing from Tuesday through to Friday and delivering from Tuesday evening through to Saturday evening. As numbers have dropped we have slightly paired that back, and of course we’ve gotten faster.”

Although often intangible in nature, ethical, affective, and competence-related resource sets at the personal level were invaluable assets to the farms involved in this research. These assets were not only mobilized, but created and cultivated (especially in the case of competence) to maintain motivation in the face of adversity and build optimism and confidence moving forward. Positive values and sentiments toward farming practice

harbored within oneself or shared within a community also form the core of this level of resources and are built upon by the resource levels to come.

4.2.2 Organizational Level

The organizational level includes *material and organizational-culture-related resource sets*. *Material resources* refer to assets that are crucial to the daily operation of the farms including facilities, equipment, financial capital, and time. One additional asset that could be considered material is the use of social media platforms to promote the activities of the farms. During the COVID-19 crisis access to certain facilities was largely enabling for farmers, but lack of access could prove to be constraining. When describing the facilities that helped the Community Farm to meet a surge in demand at the onset of the pandemic, Kim Brooks mentions a Bristol fruit and veg market, which is not a market as such, but a depot where all of the fruit and veg arrives from other nearby producers: “our farmers will drop produce off there and then we go and pick it up.” This depot, paired with pre-established access to another facility, helped the farm to provide the community with fresh produce more efficiently: “before the pandemic, we were only packing two days of the week, but because of our capacity and our warehouse we were able to start packing more days per week, from Tuesday through to Friday.”

At New Spring Farm, access to neighboring land and its facilities proved to be an enabling resource during the pandemic. Ava Young explains that “we are partnering with two growing sites. We are able to use the infrastructure at [a neighboring site] where our polytunnels are located, so we have those resources to draw on.” When facilities that were normally available to producers for food distribution started to close, alternatives were found. Adrian Izzard from Wild Country Organics, who primarily sold his produce at farmer’s markets before the pandemic, had to find outlets for his food elsewhere when markets started to close. He elaborates: “one big fashionable market in London did shut, so what we did then was have people collect their food from a guy in his yoga studio, and that covered Broadway and Victoria Park which were two of the big markets that shut.” Although New Spring Farm had access to partnering sites for growing food, they faced a constraint similar to Wild Country Organics when it came to accessing their usual food distribution facilities. Ava Young

remarks that “two of our pick up points, a farm and a shop, were not open throughout the pandemic the way they had been so they weren’t as accessible to our members and we had to be really careful about finding out when they were open, telling people when they were closed, so we had to alter our schedules a bit to make sure people could get their food.” The need for adaptation that arose with access to facilities also applies to the mobilization of equipment.

When it came to navigating the restrictions associated with the COVID-19 crisis, producers made use of personal protective equipment and sanitary gear to continue operating, albeit at a slower pace. Carey Emerson of Eden Farms, who continued selling produce at farmer’s markets throughout the pandemic, reflects that “they were only allowing so many into the market at one point. You had to wear masks, including the stallholders. We had sanitizer everywhere...it carried on, but things were slow.” Similarly, Adrian Izzard recalls that he “bought gloves straightaway: 1000s and 1000s of gloves for the workers, boxes, and boxes - pallets full.” He bought masks by the end of April 2020 for the markets because he could sense early on that they would be needing them.

Besides protective equipment, farmers also made use of vehicles to expand the capacity of their operation. Luckily, in the case of the Community Farm they were “donated a van from people who knew [them] from the local market, so that added to [their] capacity.” At Eden Farms the response to meeting a surge in demand for produce was similar. Located on the North Lincolnshire fens, Carey Emerson explains that they “took on an extra van and extra driver to do all of the Lincolnshire villages.” Taking on new villages for delivery due to demand was as simple as “just looking at a map” and asking “where’s this village? Where’s that one?” then realizing that “oh, they’re all quite close together, or close to a place we already go!” and deciding, “let’s put them on this round, or on the return loop.” Increasing the capacity to meet demand through the mobilization of equipment was mirrored by the use of financial capital.

At Bluebell Organics, an unusual series of events unfolded during the pandemic regarding access to financial capital. Unfortunately, the small farm experienced a robbery in which all of their machinery was stolen. However, Cath Yates explains that

“because our insurance is really good, we got all new machines.” At the same time, the Chancellor of the Exchequer - Rishi Sunak - announced the issuing of an emergency response fund, meaning that there was a “one-off payment of 10,000 pounds to anyone who had their own business with premises.” Cath remarks that “if you’re a little business like us, that’s a real big boost.” With the fund and the farm’s insurance, Bluebell Organics was able to “get some new equipment, a vehicle, and various other things.” While the initial period of the burglary during the summer of 2020 was difficult to manage without machinery, ultimately the new machinery was much better, not to mention newer, and the financial capital they received was “certainly helpful and quite a big boost actually.”

Lack of time and financial capital can also constrain a farm’s operation, especially in the face of unprecedented demand. At New Spring Farm, material resources were mobilized where they were needed the most. Ava Young explains that “we haven’t been able to focus on supporting vulnerable people a lot, because we’ve needed to spend most of our time and resources just trying to get the business viable.” She remarks that while the farm has managed to achieve financial viability for the most part in the past couple of years, there is more to be done, and the pandemic did not ease this burden. For another small-scale farm, the challenge of feeding new customers was made more difficult by constraints of time and labor. Cath Yates of Bluebell Organics laments that “we didn’t have enough time to devote to the growing side because we were so busy packing and delivering.”

While not explicitly included in Moriggi’s (2020) articulation of material resources, the use of social media platforms and digital spaces enabled farmers’ responses to burgeoning demand during the pandemic. Whether it is interpreted as digital equipment or facility (online space), this resource helped to organize the flow of orders arriving to producers and keep their businesses running. At the Community Farm, a bespoke website system was used to deal with the increase in veg box customers. Kim Brooks is grateful that “we had all the systems there in terms of technology and supply where we could immediately reach out [to the website developer].”

At Growing with Grace, alongside other farms, it was an online shop that allowed customers to order exactly what they wanted and stay informed about the produce

available, which was subject to change weekly. Ellie Parker explains that since the pandemic started they've developed "a system where if someone wants to become a customer they fill in a form with their contact details," and then the farm management takes a look at where there's the capacity to take on new customers "because we never envisaged having more orders than we could deal with...it just wasn't something that had ever happened before." Another digital tool brought to the fore in the past year is video calling software, which Ava Young credits for keeping the core team at New Spring Farm as connected as possible during moments of lockdown: "we had to shift all of our board meetings online, but we're quite used to doing that now. I would say the beginning of it was more difficult. We are a small group and we all help run the business, we knew moving online was what we needed to and we just did it. In order to keep the business going, we had to meet." While incomparable to meeting face-to-face, digital meeting spaces proved useful to maintaining social cohesion.

Parallel to the emergence of new online spaces used by farmers is an ongoing use of social media platforms to promote small-scale production. John Jones from Jones Farm expresses his gratitude that platforms such as Facebook and Twitter have allowed smaller shops and businesses to connect directly with their customers, which has helped the market for this food to a resurgence. He notices that the acceleration in connectivity between his farm and his customers has only been possible in the past four or five years, whereas prior to the widespread use of social media, only supermarkets with large advertising budgets could highlight their supply. This material resource was mobilized throughout the pandemic as customers checked on social media for outlets of local food production and encountered Jones Farm in their area.

The second resource at the organizational level is related to *organizational culture*. This resource set includes shared norms and attitudes embedded in the organizational culture of the entrepreneurial activity. A certain way of interacting and operating on the farm became an enabling factor during times of uncertainty. Kim Brooks credits underlying success in wavering moments to the "fantastic team of people" working at the Community Farm. She reflects that "the farm's been going for ten years and it kind of started with dreams and passion and definitely not much money." The people who continue to work on the farm are ones "who have been told 'we might not have enough money to pay you next week'...they've lived through those times." So while the work

presented by the crisis was extremely hard, the attitude remained “we’re doing what we’re doing and we’ll figure it out.” This go-getter attitude was shared by members of New Spring Farm, as Ava describes being part of “a small group of people who are able to be fairly flexible and cooperate well as a group.” This shared (and renewed) sense of purpose within close-knit teams served as an anchor in the face of multifold challenges at the outbreak of the COVID-19 crisis.

More so than resources at the personal level, resources at the organizational level proved to be especially constraining at times for the producers involved in this research. Lack of time and financial capital were standout limiting factors when it came to responding to the disruptions of the COVID-19 crisis. Simultaneously, unexpected aid in the form of emergency response funding and strong organizational capacity, for instance, were highly enabling assets. Material resources such as fixed and improvised facilities and equipment also played a critical role in responding to the initial panic of the pandemic; this can be extended to include social media and the internet as digital platforms and spaces vital to the prosperity of certain farmers. The community was also involved in the mobilization of organizational resources. In one instance, a yoga studio became the new pick-up point for vegetables and a van was delivered by customers to expand the capacity of farm operation in another. The importance of the community is explored at the eco-social level in the following section.

4.2.3 Eco-social community level

The eco-social community level of resources encompasses *place-specific and social resource sets*. When it comes to *place-specific resources*, they can include living ecosystems that characterize a place as well as the physical and mental attributes conducive to a shared resonance regarding place. Only the latter aspect of place-specific resources surfaced in this research, while all aspects of social resources were present, namely networks, relations, social ties, and humans crucial to the daily operation of the farms and market gardens involved.

Starting with place-specific resources, Ria Marshall and Anna Barrett of Brown Rock Market Garden remark how being located in Bristol - “a very food-aware and food-centric city” - translates to working with people who are interested in their type of

production. They explain: “We can sell more unusual crops because there are lots of restaurants and chefs which are interested in them, and that makes it fun for us.” They also sensed that as a result of living in a food-aware city, people have supported local food production a lot more as a result of COVID. In this case, mental attributes to a shared resonance of the city’s food culture became a resource to leverage during the pandemic.

When it comes to the *social resources* mobilized by the producers involved in this research, it becomes clear that many individuals and networks were vital to the success of these farms in responding to the surge of demand experienced at the onset of the pandemic. However, while being connected to a larger network of producers, whether other local farms, cooperatives, or importers, was an enabling resource for some during the COVID-19 crisis, it became a constraining resource for others. Kim Brooks from The Community Farm describes the benefit of being well-connected to other producers in order to meet the surge in demand they faced in the spring of 2020: “Luckily for us, because we [have] that model of buying in and because we also have wholesale, we have access to other farmers, we have access to other wholesalers, and we have a bespoke website system that deals with our veg box customers...we had the system there in terms of technology and supply where we could immediately reach out.” She continues by describing that in that initial moment of panic “we had to call upon all of our supplies, so our wholesale manager Jake spent every waking hour thinking of how to get enough veg in order to service twice the amount of customers.” In the case of social resources, it was the combination of individual effort and connection to other producers that enabled The Community Farm to find the capacity for meeting additional demand.

Ellie Parker reflects on how a connection to a larger network also helped Growing with Grace at the onset of the crisis: “There were times last year when we were working with other whole food shops and other farms, and there was a real sense that locally, businesses like ours were kind of in sympathy with each other, and were helping each other out, rather than treating each other as competitors...there was a real sense of us being part of this network of people who had this challenge in common, which was to just keep providing food through the crisis. We all did what we could to help each

other do that.” She describes for instance when “the whole foods shop in our local town helped me find flour when there was no flour available when I first started the bakery.” The idea to add the bakery to the organic farm was coincidentally in the planning stages when the pandemic first hit. It was able to get up and running by early May of 2020, partially due to this support from the farm’s social network.

The producers of Brown Rock Market Garden also found an outlet for their veg through wholesale and existing connections; this became especially vital following the closure of restaurants which had been their primary source of revenue before the pandemic. Ria and Anna elaborate that “because there was a lack of restaurants we did approach one particular shop locally who is a really reliable customer and takes a lot of things from us. Actually, it is not very far away, and they specialize particularly in having fancy vegetables so it was great and has carried on this year.” Diversifying their wholesale beyond restaurants proved particularly successful when it came to connecting with the shop’s network as “they’ve put us in contact with another sister shop in Bristol which has just opened, so we were able to sell straight into that shop as well. The shop was already on board with what we did before they opened.” The producers at Brown Rock reflect that selling beyond restaurants and broadening their social network was helpful “because it made us look up and expand. We’ve gotten a more diverse customer base, and that’s a good thing.”

When reflecting on the key opportunities that arose as a result of the COVID-19 crisis, Cath Yates from Bluebell Organics recalls the consolidation of pre-existing key relationships, particularly “the wholesalers that we buy from, and people like the [market] stallholders because I remember everybody was partly up against it [COVID-19] so we were all helping each other.” On the other hand, larger social networks had the potential to become constraining resources for those who either relied primarily upon selling their own produce directly to customers, or those who experienced disruptions in receiving supply. Ava Young of New Spring Farm, a community-supported agriculture scheme dealing explicitly with homegrown produce, states that “we weren’t in a position to take on a lot more members because we didn’t have the resources and the ability to upscale. We were upfront and told people on the waiting list that it would probably be months before they could join, and that we would

let them know as soon as we had a place...we weren't able to take on that many new people." In this case, self-sufficient supply - a model that works under ordinary circumstances - had its limitations when met with unprecedented demand.

For a community cooperative farm dealing with produce sourced both on-site and from the surrounding area, being part of a larger producer network also proved to be a constraint at times. Ellie Parker of Growing with Grace explains that "although we grow a lot of produce on the farm, we also buy other fruit and vegetables from wholesalers which go in our boxes and in the shop. We also buy dried goods, whole foods, from a big national cooperative, and we started experiencing supply problems quite early on." The first month of the pandemic was spent "firefighting" in response to enormous demand and disruptions further along the supply chain, but by mid-April of 2020 "the suppliers had also managed to get control of the situation that they were in so that the supply chain kind of settled down again." While the constraining nature of this, and many other resources, has eased since the onset of the pandemic, the initial challenges they posed are still remembered in vivid detail.

Another key social resource during the pandemic was the driving force of labor. This included community members, family, friends, existing and new customers, and staff who combined their efforts to meet the surge in demand for local produce. When the members of New Spring Farm noticed that vulnerable individuals needed to self-isolate, they asked their community whether anyone could drop off food at different pick-up points to those who were sheltering, and they received a positive response from volunteers. Ellie Parker remarks that there wasn't a single day when they didn't send deliveries out at Growing with Grace, and everyone worked throughout the initial surge in demand at the onset of the pandemic in March 2020. She recalls that "lots of new people came to work with us. We took on quite a lot of new staff and had lots of volunteering with us last year as well." Ellie reflects that while it was initially chaotic and they weren't doing things very efficiently or effectively, and people were burning out, everyone "just kind of rallied really, and because we're a community-based business anyway, there were lots of people who suddenly found themselves out of work and didn't want to just sit at home and they wanted to come and help." Support from the community was embedded in their model as a social enterprise. She explains

that “while things were very difficult, we also had customers coming in saying, do you need any more drivers, do you need any help in the greenhouse? What can we do to help?”

When it came to meeting the initial surge in demand that local producers experienced, Kim Brooks from the Community Farm mirrors Ellie Parker’s sentiments. She recalls that “basically everyone’s focus on the farm went towards making it work.” Behind the scenes, the farm had a bespoke website for taking incoming veggie box orders, so they were able to take on the capacity. Kim reflects on the contribution of one particular individual “we have our website developer who sits in Wales and is there in the background for us whenever we need her, so quite quickly we were able to cut off orders because we couldn’t take anymore, and we put in messages to customers saying ‘you can’t order this,’ or ‘we need to allow them to buy only one milk because milk is running out,’ or ‘we don’t have any flour anymore.”” Luckily, the previously mentioned support from customers further helped to soften the impact of this initial moment of chaos on the farm.

The degree to which volunteer labor was an enabling resource differed across farms. For Bluebell Organics it was only a couple who came to volunteer on the farm who carried on coming throughout most of the COVID-19 pandemic. In the case of the Community Farm, the only thing they could do was invite people to come along and help with food production but in small groups on the field. In instances where people were not allowed to volunteer at all, or in much lower numbers, community members and friends and family arrived to help where others couldn’t. Cath Yates describes that Bluebell Organics was very busy meeting demand at the onset of the pandemic, but that they were lucky because the daughter and the son of the owner were able to come help out. They also hired a delivery driver which they hadn’t had before in order to take on the extra capacity of delivering veg boxes.

Configurations in labor changed due to lockdown and loss of jobs associated with the pandemic as well. John Jones of Jones Farm describes that “we were able to cope with it within the family because my son and daughter were furloughed. They were able to help me through that time.” In the case of Eden Farms, Carey Emerson, who normally

ran the database for produce sales, needed to go into isolation with her sheltering parents, so the owner's sister came to operate the computer and the phone for what she thought would only be one weekend - due to the lockdown, she ended up staying and helping for three months. This effort within the family was strengthened by the landlady from the local pub: "the pub closed down in the village, obviously, but the landlady of the pub came over to also man a phone just so that we could deal with this huge amount of customers." Additionally, the owner of Eden Farms put a message on Facebook to ask if any locals could come to help. Carey Emerson describes the result: "three students, who lived in the same village, but didn't know each other, put themselves forward. We took them on and they became the best of friends. The experience they went through will keep them together forever." Due to changes with immigration policy and labor configurations associated with Brexit and coincidentally, the COVID-19 crisis, Adrian Izzard of Wild Country Organics also needed to find a way to deal with the shortage of salaried workers from abroad. Luckily, his family was there to help in whatever way they could: "last year, the only time we picked tomatoes was either with me and my daughter, or when my wife brought some friends over."

From small networks revolving explicitly around on-site production, to large social networks expanding to include wholesale, the mobilization of resources at the eco-social community level proved critical in different farms' ability to respond to the disruptions of the COVID-19 crisis. Place-specific resources at this level included leveraging the sense of food provenance in Bristol central to production at Brown Rock Market Garden. Social resources were especially valuable and mentioned frequently with regards to both the individuals crucial to the continued operation of certain farms and the community at large that strengthened social ties and the continuous sale of produce throughout the pandemic. Earlier it was mentioned that resources at the structural level have been omitted from the results chapter due to a lack of depth in coverage. Nonetheless, it is valuable to understand what they entail and add to the resource lens as a whole.

4.2.4 Structural level

The structural level of resources includes *infrastructural and institutional resources*. *Infrastructural resources* refer to “two subsets of structural conditions: physical infrastructures such as roads, electricity grid, and sewage systems, and non-physical infrastructures, namely the presence of a welfare system and the free market” (Moriggi, 2020: 447). *Institutional resources* are “clustered to include ‘rules’ (laws and regulations), ‘norms’ (standard procedures and practices), and ‘beliefs’ (cognitive attitudes, collective meanings, and values)” (ibid). Both of these resources extend beyond the farm itself and branch toward the position of the farm in the food system within a regional or national level that exceeds the scope of this research. This research is designed to convey the personal experiences of farmers and other members involved in the daily operations of the cases selected for this project. Upon reflection, intangible resources such as values and emotions surfaced more often for key respondents, accompanied by tangible resources at the personal, organizational, and eco-social level such as materials, financial capital, networks, and relations.

While resources at the structural level help create a richer picture of the larger system in which farms are embedded, value can also be derived from zooming into the intimate day-to-day experiences of key respondents within a smaller sphere of embeddedness. Here, responses to the disruptions posed by the COVID-19 crisis are viewed through the resource lens based on the stories of farmers and other key respondents on the ground. Within the response section, insights were gained on the resources created and mobilized by producers which enabled or constrained daily operation at farms and market gardens at the personal, organizational, and eco-social level. What follows is the ongoing aftermath that key respondents are facing as a result of the COVID-19 crisis in 2020.

4.3 Aftermath

The previous sections outlined the disruptions faced by small farmers in the UK during the COVID-19 crisis and their responses to these disruptions through the lens of three resource sets. This section provides a closer look at the (ongoing) aftermath of the crisis for farmers and the discussion will elaborate on the resourcefulness that stems

from it. The aftermath is divided into sections that explore customer retention rates, the (re)valorization of local food, and general insights and lessons learned by producers during the COVID-19 crisis.

4.3.1 Should I stay, or should I go?

Given the initial surge in demand for fresh food experienced by the producers involved in this research, the question of retention inevitably arises. When faced with sudden and panicked demand, many producers did not expect the moment to last. Carey Emerson from Eden Farms admits “we know these customers are going to leave us. Now that restrictions are lifting all over the place, numbers are down, but we're still not where we were before the pandemic. How long that will last for, we don't know. Some people came to us out of necessity, but are staying because they like it, but others are like, ‘thank you very much for helping us out, but we're off now.’” Cath Yates also observes that Bluebell Organics “probably lost at least half of [their] customers” over the course of 2020 and into the spring of 2021. She explains: “gradually as people got more used to lockdown and started developing their coping strategies, our orders started to go down...people would be saying ‘thank you very much for your service, it's been great, now we can go to the supermarket.’” For customers new to ordering organic veg boxes during the pandemic, there were stark differences compared to purchasing cleanly scrubbed fruit and veg in supermarkets. Regarding the scruffy nature of Bluebell Organics' produce, Cath remarks that while some people loved it, others “thought ‘oh, I don't know what to do with all this earth.’” Details such as these were often the determining factors for customers to ‘return to normal’ with their grocery shopping following the easing of restrictions and lockdown.

The members of Jones Farm also experienced the challenge of keeping new veg box customers, but with an unexpected outcome. When interviewed, John Jones remembers that “this time last year, customers on the box scheme were swearing that for the rest of their life they will have a box, which have since disappeared.” However, those customers flipped over the demand. While Jones Farm is dealing far less with veg boxes now, their farm shop has become much busier than it was prior to the pandemic. With gratitude, John can confirm that they're “still maintaining the turnover, but in a different way.” Despite the demand at his farm manifesting differently than

originally anticipated, the fear of retention remains present. When it comes to sustaining the rise in demand at the farm shop, John keeps thinking “maybe they're going to desert us, maybe they're going to desert us.” For now, at least, “they're not, and it's still working.” Given this security, John and the members of Jones Farm are now more confident to grow more and more of their own produce because they have a strong outlet for it.

Regardless of current retention rates stemming from the rise in demand experienced at the onset of the pandemic, producers remain wary of the future. At Growing with Grace, Ellie Parker notes that on the one hand “a lot of customers have stuck with us who may have initially only ordered from us because they were desperate, and they were trying to order from everywhere.” However, she remains aware that “a lot of people who weren't customers before the pandemic are no longer ordering from us.” For the most part, small farms have lost at least half of the new customers they received during the first wave of COVID-19, or in the case of Jones Farm, the turnover translated to other outlets of the business aside from veg boxes. Despite the volatility of customer retention, many producers seemed to remain optimistic about the increased valorization of local produce that accompanied the rise in demand.

4.3.2 (Re)valorization of local food

The panic buying and stockpiling that took place in supermarkets at the onset of the pandemic in the UK played a large role in driving unprecedented demand for local food production. Ellie Parker summarizes the moment in relation to Growing with Grace and other small farms: “I think people have realized the value of small local businesses and small local producers because people really did get a fright when they realized just how precarious the food supply chain is. They realized that places like us can provide a bit more resilience when a crisis happens, that the big international supermarket chains can't necessarily.” She then elaborates on the nature of this resilience in the face of crisis: “with somewhere like Growing with Grace and other really small farms and other places where people can buy directly from the producers, what we can offer is something that's much stronger than a chain that depends on national infrastructure working properly. We can offer a web rather than a chain, which is just by its nature much stronger and more resilient. Bits may break, but there'll be other bits there to

pick up the slack.” The web that Ellie Parker refers to is exemplified in the previous section, where farmers describe the intricate net of relations they shape and partake in order to mobilize resources more efficiently during a time of crisis.

When there is a crisis, there is also opportunity. John Jones states that Jones Farm has “actually improved as a result of [COVID-19].” He continues, “we've actually benefited from it because people suddenly wanted to reconnect with the source of their produce and the supply chains for what they're eating, so I think it has highlighted the benefits that we can demonstrate.” Producers involved in this research noticed that customers started to (re)valorize local food, not only for its resilience as Ellie Parker mentions but for the additional quality it provides. The producers at Brown Rock Market Garden elaborate, building on their feelings at the outbreak of the COVID-19 crisis: “the uncertainty was the biggest thing for us, but it all kind of worked out in the end. I think Brexit has also played a part in people growing more local food as well. The one plus side to Brexit is that the fruit and veg market for the shops and restaurants, is that the prices are so much more than they were before, then people are more likely to buy vegetables from us because we're more expensive than imported stuff, but not that much more and the quality is so much better.” Beyond customer retention and revalorization of local food, producers share their general insights, lasting impressions, and lessons learned during 2020 in light of the COVID-19 pandemic.

4.3.3 Gaining 2020 vision

When customers began (re)valorizing the supply of local food at the height of the COVID-19 crisis, producers also rediscovered the value of their own work. Ellie Parker at Growing with Grace describes the feeling: “I think for everyone who's involved with [the farm], we've come out of this past year with a really renewed feeling of the importance of what we do.” It becomes clear that the revalorization of local food for the customer and the importance of the work for the farmer are inseparable as Ellie reflects on how “we've always had a core of people who have supported us and supported our work, but that's really grown a lot in this past year. This kind of feels like the spotlight is on us, not just us at Growing with Grace, but everybody who's in our line of work, which is quite exciting. I hope I'm going to look back and think I was right about this, but it feels like there's a little bit of a shifting consciousness going on

about food and food provenance. It's quite exciting to feel that we're part of that." Evidencing her experience, Ellie explains that "business-wise, last year was our biggest year ever. Our business more than doubled, really, last year. It has stabilized now, but we've got 18 staff as opposed to the 11 that we had last spring. And so we're still operating a bigger business than we were doing previously. Apart from that initial, very difficult period, it's been a really good year for us."

Upon reflection of 2020 for Eden Farms, Carey Emerson describes a feeling that she found "a bit weird to deal with." She recalls that at the height of the pandemic "so many industries were suffering, and Eden Farms and the organic sector did not suffer at all, in fact, it was good for them. And that was from one extreme to the other that the pandemic was the downfall of some, and the making of others." She goes on to explain that "organic farms, probably more than most farms, have done alright because they have something to sell on a weekly basis." Organic farming in this case also being associated with diversity in crop production and a smaller operation of scale, Carey elaborates that "whereas a big farm that only does grains, or one crop of sugar beet, you know, they've only got one crop, they have to wait all year to crop that...so I think it can be difficult for them." Following the general success of Eden Farms for its weekly supply of food to a steady stream of customers, Carey concludes that they've "gone more into the business side of things than [they] ever have" and currently they are "trying to maintain some of what [they've] gained in the past year." Trying to keep the momentum of the opportunities presented by the crisis is a feeling shared by other producers.

Cath Yates from Bluebell Organics fears "that the moment will be lost" and "that that feeling of shock and newness, that almost anything is possible has kind of worn off, as [she] suspected it would." Within this feeling of newness there was an opportunity to make radical changes to the food system. Cath notes that "there were changes that people thought wouldn't be possible, and yet everybody found that, actually, it is perfectly possible if the need is great enough." People were able to make compromises when it came to protecting their own health and that of others with the restrictions and measures taken throughout the COVID-19 crisis. Many customers also changed their patterns of consumption in response to fluctuating supply, so the same adaptation could apply to "changing our ways of living" and relationships to food. When it comes

to running a business, Cath has gained many insights from farming during 2020: “we’re aiming for something a bit clearer than we probably were before the pandemic when we were just sort of bumbling along quite obliviously. It was okay, but now we really want it to be successful...in terms of planning and organizing, and just sort of being more focused, I think we learned a lot about just running a business.” Working smarter does not necessarily mean working harder, Cath explains that “we have to look after ourselves and nurture ourselves and make ourselves strong, because we don't know what's coming...we’re better at planning so that we make sure that we have time off, and enough rest and things.”

Following the revalorization of farming practices experienced by other producers, Kim Brooks has gained conviction for her work during the pandemic, and is also hoping the moment will last: “all of us working in local food production are desperately trying to take that opportunity from last year and keep hold of it.” Referring to the rise in demand for the produce and services at the Community Farm, Kim reflects that “we always knew the reasons we were doing all of these things, we know that connection with nature is good for people, we know that people’s city lives are damaging to their mental and physical wellbeing, we know all of that and that’s why we’re here and we do what we do. The pandemic just proved it all over again and made all of those services even more important.” Kim’s conviction is rooted in the idea that “we exist because of the fragility of the industrial food system...we exist to build resilience into the system and what was interesting about the pandemic was it not only proved the need for a different food system, but also proved that our resilience works.” She concludes that if anything positive can be taken out of the experience of 2020, it is that “the local food systems were there when the industrial ones fell down.”

After receiving a surge in demand for their produce and accepting many new customers at the outbreak of the pandemic, producers held their breath wondering how long the moment would last. As many expected, new customers brought on by the initial panic of the COVID-19 crisis have returned to shopping at supermarkets, but to the surprise of others, many new customers have stayed on. Despite fluctuations in customer retention, producers generally remained optimistic about the revalorization of local food that took place during 2020. The growing support of local food and producers, even when fueled by crisis, gave many producers a renewed sense of

purpose in their work. This drive translates to the sharpening of business skills and a will to do things better and more effectively in order to feed more people in the community. The producers involved in this research faced various challenges and seized unexpected opportunities with the perseverance characteristic of social entrepreneurs. Implications for resilience and resourcefulness stemming from these endeavors in the face of crisis is taken up in the discussion.

5. Discussion

5.1 Resourcefulness, resilience, and small farms

Having explored the impacts of the COVID-19 crisis on small farms in the UK in the results, this discussion circles back to resourcefulness. Resourcefulness, as conceived by MacKinnon and Derickson (2013: 264) is better understood as a process and a relational concept, rather than something individuals or communities possess to varying degrees; “it is the act of fostering resourcefulness, not measuring it or achieving it, that should motivate policy and activism”. Following this conceptualization, small farms are not categorized as either resourceful or unresourceful, or even resourceful to a certain extent. Instead, this discussion builds on the elements actors engage with to cultivate resourcefulness as outlined in the conceptual framework, namely, *recognition*, *resources*, *skill sets*, and *knowledge*. Signaling the need for further research to elaborate on the concept and practice of community resourcefulness (MacKinnon & Derickson, 2013), this research adds a layer to the key element of resources in cultivating resourcefulness through the use of Moriggi’s (2020) intangible and relational resource sets.

Recognition is a key element for preserving resourcefulness within MacKinnon & Derickson’s (2013) initial framework. This element emphasizes the importance and value of cultural recognition as a requisite condition of justice (Taylor, 1994; Young, 1990 in MacKinnon & Derickson, 2013). “Recognition promotes a sense of confidence, self-worth, and self-and community affirmation that can be drawn upon to fuel the mobilization of existing resources and argue for and pursue new resources” (MacKinnon & Derickson, 2013: 265). In this research, the revalorization of local food following a surge in demand for fresh produce led to an increased sense of confidence and conviction for many farmers. Having provided the only source of fresh food for many vulnerable and isolating individuals at the height of the pandemic, small farms received high praise and recognition from their customers in the form of reciprocal volunteer efforts, handmade cards, and pay-it-back COVID funds. As seen in the aftermath, producers tried to keep the momentum of the opportunities presented by the COVID-19 crisis alive by sharpening their business skills and carrying lessons

learned about feeding the community more efficiently into the future of their operations.

It was often the case that community recognition led to the mobilization of material and social resources. This manifested in long-time customers supporting the efforts of small farms through a number of actions, including the donation of vehicles for extra delivery capacity, lending personal spaces as alternative food distribution outlets, and offering to volunteer wherever needed. Connection to a larger network of people who were challenged to keep providing food throughout the crisis also fostered mutual recognition. Producers cultivated resourcefulness by recognizing the disruptions faced by others within their own network and engaging in acts of mutual aid and solidarity. Small farms received help within their network to procure scarce resources, find new retail venues, and distribute the weight of burgeoning demand.

Beyond relieving the burden of the pandemic, mutual recognition “confers group status upon the community on the basis of common attributes and a shared understanding that the community is itself a subject of rights and a receiving body for state resources” (MacKinnon & Derickson, 2013: 265). Producers involved in this research were able to leverage the group status of small farms by lobbying for farmer’s markets to remain open and receiving one-off financial support from the state in recognition of their entrepreneurial activities. The recognition of common attributes between small farms was seemingly strengthened in the mutual aid offered during shared challenges.

Resources, as another element preserving resourcefulness within MacKinnon & Derickson’s (2013) initial framework, refer to organizing capacity, time, social capital, and public and third-sector resources and investments. Further, *skill sets* and *knowledge* encompass various expertise, financial and economic knowledge, technical skills, and alternative and shared ways of knowing (Ibid). For the purposes of this research, I integrate these elements with Moriggi’s (2020) comprehensive resource sets which include skills and knowledge sets alongside intangible and relational resources. The starting point for better understanding the resourcefulness cultivated by small farms during the COVID-19 crisis is to explore the instances in which resource mobilization and co-creation aligned with locally defined priorities.

The producers involved in this research commonly expressed their priorities to reconnect people with their source of food, sustain the ecological base underpinning their productivity, and remain financially viable as a business. Others felt the desire to feed as many people as possible within the community while also taking the time to rest and nurture themselves. Another priority stressed was to build a stronger local food web, rather than being part of a long food supply chain susceptible to disruption during a crisis. Producers were frequently able to realize these priorities by mobilizing resources at the personal level, specifically competence-related resources such as entrepreneurship and management skills, technical abilities, and social skills. The mobilization and co-creation of material and social resources were also at the forefront of cultivating resourcefulness, as networks, facilities, and equipment were crucial to the daily operation of small farms during the pandemic.

The bottom-up imperatives mentioned above often aligned with the producers' own interpretations of resilience. For instance, respondents in this research considered themselves to be resilient when taking time to rest and nurture themselves, keeping their businesses financially viable, providing an alternative to long food supply chains, and managing to become more self-reliant growers. Overall, the reigning definition of resilience was simply to keep going in the face of the COVID-19 crisis; an interpretation that aligns with Ames & Greer's (2021) articulation of resilience: the capacity of individuals, organizations, and complex systems to 'bounce back' to a state of stability following a disturbance, as well as the potential for 'bouncing forwards' through forms of transformative growth triggered by adversity.

By definition, small farms cultivated resourcefulness through the mobilization and co-creation of resources in line with their own priorities; however, they remain limited in their interpretations of resilience and susceptible to the lock-ins of a larger food system. Perhaps only in taking time to rest and building stronger local food webs did producers push for self-determination outside of externally-defined imperatives for greater systems resilience. When it comes to recognition, producers involved in this research were recognized by customers for their efforts throughout the COVID-19 crisis, in turn recognizing themselves and others with similar challenges in the community. However, this increased recognition and valorization proved to be unstable

and subject to the changes of COVID-19 measures, as highlighted by fluctuating customer retention rates. Returning to the problem statement of this research, a move from resilience to resourcefulness is needed in food systems transformation to address the complexities outlined above. The following section takes up this shift in concepts within emerging literature on food systems transformation in the face of the COVID-19 crisis.

5.2 From resilience to resourcefulness

While the need for food systems transformation in light of the COVID-19 crisis is acknowledged widely in the literature, the difference in intentions guiding such a transformation is noteworthy. Meuwissen, et al (2021) summarize that discussions surrounding food systems change in relation to the COVID-19 crisis include calls for more self-sufficiency, improved fairness and inclusiveness in value chains, more cooperation among farmers, and more innovations. In their study, Meuwissen, et al (2021:5) found that the short-term impact of the COVID-19 crisis on arable farmers in the East of England was minor because “those who were entrepreneurial were able to switch quickly to capitalize on the increased retail demand. Also, those who maintained diversity in their markets were better able to adapt.” This language resonates with resilience thinking, where self-reliance is valued above self-governance and transformational capacity becomes predominantly the responsibility of the entrepreneur.

To reiterate, resilience-building has become a highly influential paradigm used to rationalize and naturalize the redistribution of responsibility for social and systemic problems from the state to communities and individuals (Ames & Greer, 2021). Discussions surrounding the lessons learned from the impact of COVID-19 on actors in food systems acknowledge the need for systemic change and the importance of the environment in which farmers are embedded, yet continue to use the limiting language of resilience thinking. From reviewing the literature, it appears that only in discussions promoting social and environmental justice within food systems transformation is an intention mirroring resourcefulness present.

In their research, Bellamy, et al (2021) take the lessons from the COVID-19 pandemic from various food systems actors in Wales to shape more resilient and just food

systems. While the term 'resilience' still appears within this study, its use hinges upon transformative democratic processes which engage actors at all levels of the food system, mirroring resourcefulness. In their research, Pereira, et al (2020) take two perspectives on the transformation needed to address the systemic failures of global food security, namely the integration of political-economy and socio-ecological approaches to regime shifts. This integration of approaches acknowledges that achieving environmental sustainability and social and economic justice is paramount to reaching a state of global food security. Therein lies the argument for strategies that enhance local capacities, rather than a new set of paternalistic solutions that do not address the complexity of food systems challenges (Shannon, 2014 in Pereira, et al., 2020). To date, the agency of communities tends to be erased or underestimated by externally-driven neoliberal strategies, often under the guise of resilience-building.

This research builds on those discussions in the literature that create space for genuine alternatives to neoliberal strategies in response to food systems in crisis. I draw upon concepts such as resourcefulness thinking within the performance arts to better understand food systems transformation from an interdisciplinary perspective. By remaining critical of what is being proposed when calls for resilience are made and who has access to resources and the levers of change, food systems transformation in light of the COVID-19 crisis can become more firmly rooted in enabling democratic self-determination for less-powerful food systems actors. The final discussion point of this research positions these food systems actors, namely small farms, in the larger picture.

5.3 Small farms in the food system

Tim Lang, the UK's leading expert on food policy, poses the question: why do we wait until we are in crisis mode to realize our food governance is weak and out of date? (Lang, 2020). While food insecurity and declining domestic food production ought to be high on the national agenda, they are barely featured until crisis looms (Ibid). Questions of food insecurity resurfaced over Brexit disruption, and continue to linger as the COVID-19 pandemic carries on. When rethinking food governance, one goal should be to shorten food chains; this is supported by a reportedly high public desire for genuinely local foods in the UK (Ibid). Rebuilding domestic food production requires more regional horticulture and the reskilling of farmers to grow more fruits

and vegetables in rotation. Producers involved in this research mirrored these needs; they expressed frustration at horticulture not being taken enough seriously in the UK, and lauded the merits of farming systems able to provide fresh fruits and vegetables on a weekly basis. While alternative farming movements, including small farms, generally respond to political shortcomings with bottom-up local transformation, it is necessary to seek larger political contexts within which their efforts can propagate (Smaje, 2020).

Small farms and the members of their networks shared mutual recognition of the efforts needed to face the challenges of the COVID-19 crisis, including meeting an unprecedented demand for fresh produce. Generally, producers used their acclamation to the precarity of everyday life as social entrepreneurs to meet challenges rapidly. However, recognition of the benefits small farms provide remains to be seen from the wider public and decision-makers in a larger political context. According to Lang (2020), the task is to achieve better integration of social and cultural aspects of food to enhance its role in how people live; this will facilitate becoming democratically accountable and subject to lively food governance at all levels. Food can be a vehicle to reinvigorate local democracy and reverse the risks of centralized food chains; this can be achieved by introducing a new set of regional structures with food-planning responsibilities across the UK (Ibid). To date, the cultural reflex in the UK has been to avoid complicated democratic processes surrounding food because full shelves at the supermarket signal that the system is in working order. However full the supermarket shelves may be, the UK food system remains fissured by risks (Ibid).

Alongside the bottom-up efforts of small farms to create local transformation, change must happen collectively, across the population, allowing for diversity (Lang, 2020). Following MacKinnon & Derickson's (2013) call for resourcefulness, one that problematizes the inability of disadvantaged groups to access the levers of change, diversity in decision-making is indeed critical to achieving democratic self-determination within the food system. Including the lived experiences of those marginalized by the current food system is perhaps the most direct venue to eradicating the systemic inequalities being exacerbated by the COVID-19 crisis.

A key question arises: how would diverse perspectives be incorporated in decision-making bodies if they diverge from one another or from the majority? (Agarwal, 2014 in Smaje, 2020). One starting block to answer this question is building consensus around producing livelihoods out of the immediate ecological basis (Smaje, 2020). Another is to invest in food citizenship throughout the economy and society in order to secure the recognition of small farms and their diverse networks (Lang, 2020). As a long-term investment in the future of food systems and its citizens, school curricula could build on pioneering work such as Food for Life, which now covers 10,000 schools in the UK (Ibid). Changing norms and behaviors for appreciation of domestic production and the self-governance needed to sustain it can also be modeled on the work being done by communities across the UK in the form of manifestos and food bills for the rights of future generations (Bellamy, et al., 2021).

The need for more direct home consumption from shorter supply lines, accountable food governance at all levels, and a stronger culture of food citizenship is urgent and increasingly so in the face of crisis. Decision-makers, citizens, and NGOs working in the spheres of food justice and governance all have a role to play in supporting grassroots growers towards cultivating resourcefulness. The bottom-up efforts of growers to confer mutual recognition amongst themselves can be strengthened by funding umbrella organizations of local producers across the UK. To clarify, this should not be a slide into extreme nationalism as self-sufficiency but stem from a desire to address issues as varied as carbon emissions, water use, biodiversity loss, fair wages, skills enhancement, and inequality reduction (Lang, 2020). As local autonomies are built, there will inevitably be spillovers from the wider global economy that perturb the impetus to localism (Smaje, 2020). The point of a small farm future is not to reproduce the unequal power relations of global capitalism through bottom-up reinventions of capitalism by local peasant entrepreneurialism, rather calls for self-governance on the local level should continue to question existing systemic challenges and power relations.

6. Conclusion

In this research, small farms are explored through a resource lens in order to better grasp the possibilities and challenges of small-scale food production during times of crisis. Located in the UK, the small farms involved in this research operate within a mainstream food system characterized by “vast sectors of just-in-time food logistics and reliance upon large imports of fresh produce from the European Union” (Lang, 2020: 72). When long food supply chains were disrupted at the onset of the pandemic and panic buying led to stockpiling, small farms were among the first to respond to a sudden demand for fresh produce. While the threat of prolonged food shortage has passed, the pandemic has exacerbated food insecurity for those already struggling and created new vulnerabilities through lost income or work (Loopstra, 2020 in Bellamy, et al., 2021). Given the state of food insecurity highlighted by the COVID-19 crisis, this is an opportune moment to “build food systems back better and achieve improved health, sustainability, [and] inclusion plus resilience” (McDermott, 2021 in Béné, et al., 2021).

This research adds to the fast-growing literature assessing the impacts of the COVID-19 crisis on different parts of food systems, one that often calls for resilience-building. By drawing on the literature that creates space for genuine alternatives to neoliberal strategies in response to food systems in crisis, I explore how resourcefulness can be cultivated by small farms beyond the pitfalls of resilience. As elaborated in the conceptual framework, cultural geographers MacKinnon & Derickson (2013: 263) problematize resilience thinking for being inherently conservative “insofar as it privileges the restoration of existing systemic relations rather than their transformation”. This critique calls for a renegotiation of the term, or as MacKinnon & Derickson (2013) propose, a move toward resourcefulness.

As an alternative to resilience, resourcefulness can be interpreted as a concept that emphasizes local autonomy, self-determination, and the development of the capacity to shape and ultimately transform the wider environment in a way that both addresses local issues and appreciates systemic challenges (MacKinnon & Derickson, 2013). I am guided to explore the possibilities and challenges of small farms during this time of crisis, including its implications for resilience and resourcefulness, using the following research question: *how have small farms in the UK navigated the COVID-19 crisis?* This

question is explored throughout my findings, which are organized to tell the story of disruptions to small-scale food producers in the UK during the Covid-19 crisis, their response to these disruptions including the mobilization and creation of resources, and the ongoing aftermath stemming from it.

The members of small farms used their acclamation to the precarity of everyday life as social entrepreneurs to meet the challenges presented by the COVID-19 crisis rapidly. The principal disruptions faced by producers involved in this research were a sudden demand for fruits and vegetables, the need for alternative food distribution outlets, and changes to labor configurations: most commonly a shortage in labor. As social entrepreneurs, farmers were able to mobilize and co-create comprehensive resources, including those which are less tangible and more relational. Social resources, such as networks of local producers, and material resources, namely access to facilities and equipment, proved critical to the continued operation of small farms during the pandemic. Online spaces and social media platforms also played a key role in facilitating exchanges between producers and their customers during the instability of the COVID-19 crisis.

In the discussion, I revisited MacKinnon & Derickson's (2013) initial framework of elements for cultivating resourcefulness within individuals and communities, namely recognition, resources, skill sets, and knowledge. For the purposes of this research, these elements are integrated with Moriggi's (2020) intangible and relational resource sets. When it comes to recognition, producers involved in this research were recognized by customers for their efforts throughout the COVID-19 crisis, in turn recognizing themselves and others with similar challenges in the community. However, this increased recognition and valorization proved to be unstable and subject to the changes of COVID-19 measures, as highlighted by fluctuating customer retention rates. It becomes clear that recognition of the benefits small farms provide remains to be seen from the wider public and decision-makers in a larger political context. This can be remedied within the UK by promoting direct home consumption from shorter supply lines, introducing accountable food governance at all levels, and fostering a stronger culture of food citizenship.

When it comes to resources, small farms cultivated resourcefulness through the mobilization and co-creation of resources in line with their own priorities; however, they remain limited in their interpretations of resilience and susceptible to the lock-ins of a larger food system. Perhaps only in taking time to rest and building stronger local food webs did producers push for self-determination outside of externally-defined imperatives for greater systems resilience. Overall, the reigning definition of resilience by producers involved in this research was simply to keep going in the face of the COVID-19 crisis. While most farmers quickly adapted to meet the challenges of the pandemic, they often did so at the cost of their mental and physical wellbeing; working long hours into the night and making moral trade-offs were some of the means to feed the community as emergency responders. Even when considering themselves resilient, producers were merely surviving, or in resilience-thinking terms, 'bouncing back' from the shocks of the crisis.

Moving forward with food systems transformation in light of the COVID-19 crisis it becomes increasingly apparent that small farms need to be supported in the cultivation of resourcefulness, rather than traditional notions of resilience. This means remaining critical of externally-defined imperatives for greater systems resilience and supporting bottom-up efforts to achieve inclusive, democratic self-governance. As expressed by the producers involved in my research, and those in Bellamy, et al's (2021), the value of small farms continues to be overlooked societally and from a governmental standpoint. The burden of systemic inequalities in the food system and the insecurity it proliferates cannot be solved by individuals or communities alone, it requires action from all of us.

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Appendix

A. Case Study Descriptions

1. New Spring Farm

Description: A community-supported agriculture scheme/social enterprise using permaculture principles located on the outskirts of Bristol

Pre-pandemic: Veg shares grown on site were made available to members at pickup points throughout Bristol on a weekly basis and surplus produce was sold to wholesale

Respondent: Ava Young

2. The Community Farm

Description: A community-owned social enterprise growing and selling organic produce located in Chew Magna, Somerset

Pre-pandemic: Box delivery service supplied hundreds of homes throughout Bath, Bristol, the Chew Valley, Frome, and Weston-Super-Mare with produce sourced on-site and from local farmers, buying for wholesale to supply restaurants and cafes

Respondent: Kim Brooks

3. Wild Country Organics

Description: A modern organic family farm growing seasonal vegetables located in Cambridge

Pre-pandemic: Produce sold at farmer's markets all over London and surplus sold to

wholesale

Respondent: Adrian Izzard

4. Brown Rock Market Garden

Description: A modern organic family farm growing seasonal vegetables located in Cambridge

Pre-pandemic: Produce sold at farmer's markets all over London and surplus sold to wholesale

Respondents: Ria Marshall and Anna Barrett

5. Bluebell Organics

Description: A small family company growing and selling organic fruits and vegetables located in North Yorkshire

Pre-pandemic: Produce grown on-site and in Yorkshire was delivered to homes and at farmer's markets in 3 locations

Respondent: Cath Yates

6. Jones Farm

Description: A family-run business selling fresh fruits and vegetables from their farm

Located in South Wirral

Pre-pandemic: Produce sold primarily in farmer's markets and also at the farm shop on site

Respondent: John Jones

7. Eden Farms

Description: An organic vegetable farm located in North Lincolnshire

Pre-pandemic: Produce supplied through home deliveries and farmer's markets

Respondent: Carey Emerson

8. Growing with Grace

Description: A community cooperative farm and social enterprise growing organic vegetables and fruits located in Lancaster

Pre-pandemic: Produce sourced from the surrounding area and on-site to be sold in the farm shop or through home delivery

Respondent: Ellie Parker

B. Individual Data Management Plan

1. Organizational context

Name researcher	Cristina Biddlecome
Name supervisors	Anke de Vrieze and Mustafa Hasanov
Chair group	Rural Sociology
Start date of project	March 15, 2021
Expected end date of project	February 1, 2022

2. Research project

Title	Hidden in plain sight: Exploring the impact of the COVID-19 crisis on small farms in the UK and resourcefulness
Project summary	In this research, small farms are explored through a resource lens in order to better grasp the possibilities and challenges of small-scale food production during times of crisis. By drawing on the literature that creates space for genuine alternatives to neoliberal strategies in response to food systems in crisis, I explore how resourcefulness can be cultivated by small farms beyond the pitfalls of resilience.

3. Define data management roles

Roles	
Who is collecting the data?	Cristina Biddlecome
Who is analyzing the data?	Cristina Biddlecome
<i>Other</i> (Do you make use of translators or others who help you with collecting or analyzing data?)	
<i>Partner organization</i> (Is your research embedded within an organization or commissioned? Did you grant the organization access to your data?)	

4. Data

Data stage	Specification of type of research data	Storage location during research	Back-up location
Raw data	Recorded and transcribed interviews	Personal laptop	
Processed data	Atlas.ti	Personal laptop	

File structure	Data_Biddlecome_Thesis_2022		
Storage	Personal laptop		
Protection	Password protected		
Archive			W: drive