Regenerative Agriculture and COVID-19 Capital Needs

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This project has been supported by the Thread Fund and its principal, Tim Crosby. The vision of the Thread Fund is a viable network of regionally based enterprises that succeed by supporting each other's business and values-based goals. The primary focus area for engagement is to improve market conditions for enterprises involved in sustainable / eco-agrological food. We use multiples form of capital to leverage change and consider the notion that one of the best ways to conserve farmland is to improve the economics of farming. The primary region for engagement is the U.S.'s Pacific Northwest region, with strategic national and international investments also deployed. Learn more at http://www.threadfund.org/
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Introduction

The COVID-19 pandemic has shaken the food system to its core. During the height of the economic shutdown and outbreaks of coronavirus hotspots, conventional supply chains have faltered, both in maintaining supplies of products to customers and pivoting to address new market norms in a time of physical distancing. Yet, the bright spots during this trying period have been the resiliency of our local and regional food systems. Those operating in the sustainable, regenerative, and agroecological corners of the food system are seeing a surge in demand from consumers. Local markets, social connection, and a redefining and conceptualization of ‘value’ has shifted buying patterns. Many questions have arisen as to the staying power of this surge, and whether it will be sustainable in a post-COVID world. Increasing the strength and longevity of these food system businesses requires access to capital to address operational pinch-points and bottlenecks.

Traditional sources of capital ranging from philanthropy to private equity to banking institutions have demonstrated a strong interest in investing in a more diversified, resilient food system. To better understand and capture capital needs of current operators in the regenerative value chain during the COVID-19 pandemic, Croatan Institute and Thread Fund conducted original research focused on the livestock and grain sectors in the spring and early summer of 2020. We developed and distributed a comprehensive survey, collecting quantitative and qualitative data from more than 80 value chain actors in North America about their current operational and financial challenges. Results showed that while some of these issues had newly emerged, most already existed and had been exaggerated or accelerated by the pandemic. This report is an overview of these results, highlighting the greatest needs in the regenerative meat and grain sectors to direct the capital flows required to support the growth of these emerging sectors.
Overview of the Challenge

The COVID pandemic has publicly exposed the dangers and shortfalls of centralized food processing and a commodity-based system. But these were realities that many small and mid-scale farmers, ranchers, and processors already knew well. The regenerative food supply chain faced issues such as lack of mid-chain processing capacity, inconsistent regulatory requirements, and lack of access to capital. However, COVID threw these issues into stark relief when our national supply chain tipped toward relying on regeneratively and locally grown foods to feed communities and stock grocery store shelves.

The pandemic and economic fallout caused a sharp spike in demand for better food choices. People at first did not want to shop at grocery stores in fear of gathering with others, and also expressed preference for knowing where their food comes from in light of health and safety concerns, many of which were not well understood or miscommunicated by public officials. With this spike in demand, farms that had established channels for selling directly to consumers, such as community supported agriculture (CSA), direct-to-consumer or retail sales, or were able to quickly pivot to adapt them, generally fared much better as restaurant and institutional wholesale accounts dried up due to the economy shutting down.

To better understand the conditions on small farms, Stone Barns Center for Food and Agriculture’s surveyed 240 small farmers in the early spring, during the height of state economic shutdowns. Their report found that approximately 30% of these businesses would not be able to keep up with the increased volume caused by COVID and one-third of the respondents said they may face bankruptcy by the end of 2020 if a 50% decline in sales through restaurants and farmers markets continued through the end of the year.

While traditional sources of revenue such as farmers markets and restaurant sales declined due to the pandemic, there was simultaneously an increase in overall consumer demand for local and regenerative farm products. The same Stone Barns survey showed a nearly 250% increase in online home delivery sales and more than 20% increase in CSA and on-site farm store demand, as well. These trends have since been borne out over the ensuing months and across farming sectors, from vegetables to grain to livestock. This demonstrates how financially vulnerable small and sustainable farms and the mid-chain infrastructure supporting them were prior to COVID, and how necessary an expansion and re-tooling of investment in the industry must be going forward.

Regenerative Livestock

The meat processing industry has been one of the largest industry hotspots of coronavirus outbreaks across the nation, outside of health care. Safety and health issues at meat processing and packing facilities caused major bottlenecks in much of the conventional U.S. meat supply getting to grocery store shelves. As of late July, at least 38,000 meatpacking workers have tested positive for COVID and 170 have died. Furthermore, 145 USDA meat inspectors were diagnosed with COVID, of which at least 3 have died from the virus. With workers out sick or outbreaks shutting down plants, the supply chain faltered, and retail shelves were left empty.

As grocery stores quickly sold out of meat, retailers and consumers turned to small processors to fulfill the demand. The spike in demand for their product left processors scrambling to fulfill
orders, while their appointment slots for livestock were booking up for the season, the year and sometimes even into 2021. In Virginia’s Rappahonnack region, farmers reported the wait to schedule at a slaughterhouse jumping from “just a few weeks” to over four months. There have been reports of similar, if not longer, delays at processing plants across the country.

Even before the pandemic, USDA’s handling of meat processing already favored large plants over small- and mid-scale facilities. The Wholesome Meat Act, first passed by Congress in 1967 as an amendment to the Federal Meat Inspection Act, requires that the meat of cows, pigs, sheep and goats sold commercially across state lines be slaughtered and processed in USDA-inspected facilities. Most small- and mid-scale processors, however, are catering to small- and mid-scale farmers and ranchers, who are less likely to sell across state lines and rather through various outlets to their local or regional communities. These farms also often don’t have the capital to invest in interstate commercial sales, including the requirements and certifications that accompany the slaughtering and processing process. Even at the smallest scale, farmers are often selling shares of the whole animal before they are slaughtered; in these cases, depending on the state-level restrictions, they can slaughter and process on-farm or go to a custom state-inspected facility.

In short, small- and mid-scale processing plants were already hindered by legislative restrictions that favor the economics of large plants, coupled with a lack of public and private investment into their facilities and technology. With demand for small-scale processing already on the rise, they were hitting capacity. Facing economic stressors and public health concerns, they are not able to expand quickly enough in scale, nor improve the efficiency of their systems, without much-needed infusions of capital.

Regenerative Grains

While at home during pandemic quarantine, many people discovered (or re-discovered) an interest in baking. Preparing cookies, cakes, and perhaps most famously, sourdough bread became attractive as an activity that is relatively affordable, easy to do at home, and serves as a stress-reliever. The uptick in at-home cooking, that also caused a spike in the demand for local meats, brought a significant increase in the demand for baking staples like flour, yeast, and baking powder, leading to shortages at supermarkets nationwide. According to the Grain Foods Foundation, by the end of March and the start of many state-wide stay-at-home orders, overall retail flour sales rose by more than 150% and baking mixes up by nearly 100% compared to last year.

The pandemic has cultivated more interest in local or regional grain economies. While flour sales rose across the industry for large and small producers alike, the sales of small- to midsized millers, such as King Arthur Flour, at least tripled. Unlike the meat shortages, the grain shortfall was not due to supply chain limitations, but rather from the significant increase in retail consumer demand that required a shift from the commodity and institutional supply chains largely dominated in the industry. While commodity and large-scale growers were still producing grain, millers were largely able to mill it but not able to process or package it in the sizes and quantities demanded by retailers or consumers. Large grain cleaning and operations that were used to send off product in semi-trucks were being asked to package into pallets or directly into retail bags – a difficult transition requiring facility, capacity and technology that are difficult to secure capital for even without a pandemic.
Meanwhile, retail regeneratively-grown grain was flying off grocery store shelves, online stores, and out of farm stands faster than they could be restocked, resulting in shortages for many weeks in some regions. Many regenerative producers and processors were already marketing directly to consumers, focused largely within their local or regional wholesale economies. While the marketing infrastructure and customer reach was there, the processing infrastructure was not. The exponential increase in demand during the pandemic underscored already existing mid-chain infrastructure needs; namely, cleaning and processing. While regenerative grain millers comprise a mere 1.5% of the economic activity of millers, cleaning and processing fall well behind that in terms of capacity and number of facilities. Without existing or accessible small- and mid-scale facilities, regenerative grain farmers are essentially forced to adapt by storing and cleaning product on their own farms, before heading out to be milled. Improper storage conditions can result in grain spoiling post-harvest, and on-farm cleaning requires the additional time and expense of labor and equipment. This can result in the final product being delayed, or a percentage of it never making it to retail shelves at all. The lack of mid-chain processing infrastructure was already hindering the sector’s growth and financial returns.
Key Findings: Survey & Interview Results

Croatan Institute conducted a survey in the spring of 2020 to assess the capital needs of the regenerative livestock and food-grade grain sectors. Seventy-eight respondents from the U.S. completed the survey representing 54 livestock and 22 grain businesses across the value chain including agricultural production; processing, distribution and storage; and sales and marketing. These respondents represented businesses located across 31 states. Thirty-one respondents reported to be a beginning farmer, rancher, or business owner; 18 reported to be a limited resource farmer, rancher or business owner; 15 reported to be a socially disadvantaged farmer, rancher, or business owner; and 4 reported to be a veteran farmer.

Across both livestock and grain sectors, most respondents were either breakeven or profitable pre-COVID and have been able to maintain the same or better sales post-COVID. Further, most of the livestock and grain sector businesses that responded to this survey also reported the same or better in growth and staffing capacity.
Depending on the type of business, business size and marketing strategy, respondents reported a variety of ways they have shifted their business to respond to COVID. As institutions and restaurants closed, those with a majority of sales to these markets needed to transition to primarily retail and direct to consumer channels. Those with diversified market channels reportedly found it easier to refocus on the direct channels they had already been established in. In response to how these businesses plan to capture new customers and market share in a post-COVID world, the top three responses were strategic collaborations, organic outreach and, increase marketing – all strategies aligned with direct market channels. This is exemplified by one respondent’s decision to seek out collaborations with existing CSAs rather than try to reinvent the wheel or individually pack and ship orders to each customer. In particular, they noted, this decision is further supported by an increase in demand for CSAs as consumers are looking for more food secure options.
Livestock operations, by the nature of their business, cannot quickly adapt to sudden changes in demand. Not only does it take time to raise livestock to mature weight, but some farmers reported a lack of feeder stock available even if they wanted to meet demand six to twelve months out. Livestock processors reported an increased demand from farmers, at the same time PPE requirements not only slowed down processing time and capacity, but also increased costs. As one processor reported, butchering is a lost art — there are very few trained butchers and thus a lack of potential hires to increase capacity. Hiring inexperienced staff would not help meet immediate demand, as it would take time to fully orient and train beginning butchers. Further, livestock businesses experienced the lack of capital and cash on hand to increase freezer storage, scale production, and purchase new equipment.

In the regenerative grain sector, storage and food-grade processing has always been a bottleneck in the value chain, and COVID has exacerbated this problem. Mills are experiencing an increased demand, particularly for flour. They are also receiving a majority of orders online, primarily from individual households. This change from traditional wholesale orders to retail orders has required production to shift to pack smaller, family-sized packaging. With a decrease in order size and an increase in number of orders, mills are spending more time on packing and shipping logistics than before, scrambling to create efficiencies. As processing and equipment hours increased to meet this new demand, respondents experienced more frequent equipment failure, requiring more time and money spent on repairs. Bakeries and breweries sourcing local grains have also had a harder time adapting to solely rely on online sales. Several reported that pre-COVID they were profitable but are now only breaking even.

According to the survey, 36 percent reported that they would need between $0 and $50 thousand dollars to support their business post-COVID. This was followed by 18 percent that requested between $50 thousand and $100 thousand, and 13 percent that requested more than $1 million.

If additional capital was available, 53 respondents reported that they would use it on capital, 46 on people and human resources, and 32 on marketing. These total responses are split evenly between

![Figure 4: Survey responses from regenerative livestock and grain producers, from Section 4: “ Financing Needs”](image-url)
livestock and grain businesses, with the exception of marketing and product development. 19 percent of livestock producers reported they would use capital on marketing and only 11 percent reported they would use it on product development and research and development, whereas only 13 percent of grain businesses reported that they would use capital on marketing and 17 percent reported they would use it on product development and research and development.

Out of the 78 that responded, 51 reported that they self-financed their enterprise, 27 used bank loans, 18 relied on family and friends, 15 went through the farm credit system or FSA, and only 12 used equity investors. These responses were evenly split between livestock and grain sectors.
Next Steps & Further Directions

The challenge of getting regeneratively produced food and other products from the land to the consumer is one that is intermediated by many types of infrastructure assets needed to harvest, clean, process, store, or otherwise prepare those goods for sale and eventual consumption. In the last century, there has been a major consolidation across agriculture, squeezing out many small and mid-sized producers and the infrastructure assets that they need to move products to market. Shifting toward a more regenerative agricultural system will not only require a more diversified landscape, but also the revitalization of our infrastructure. The present-day challenges have been magnified by the COVID-19 pandemic, as distribution channels shift, procurement patterns are re-thought, and the opportunity arises to re-think how the future of our food and agriculture systems are configured.

While there are many factors that are needed to build more regenerative agricultural systems, access to appropriately structured capital is one barrier that was focused on within this project. The data collected through the surveys and interviews as part of this process provided further evidence to the anecdotal stories circulating through the community that there are critical bottlenecks within these value chains that could be alleviated. Given that our surveys were attempting to reach a population that was extremely busy and over-stretched during the time we conducted outreach, responses around capital needed exceeded $40M, which is likely underestimated by at least an order of magnitude.

As regenerative, organic, sustainable, and agroecological forms of agriculture grow, these operations will require catalytic capital that is not available from traditional sources since most bankers and investors do not value the full set of benefits that these types of infrastructure investments required for sectoral growth provide. This provides an opportunity for sources of catalytic capital to engage the regenerative agriculture sector with appropriately structured, flexible, patient capital that is also mission aligned in improving Soil Wealth. We documented three main uses for capital across regenerative grain and livestock infrastructure needs:

- **Capital for growing businesses** – Although demand for grass-fed livestock is soaring in the US, much of that supply is imported. It is uneconomical for producers to transport their livestock hundreds of miles to the nearest processor. Many existing processors are seeking capital to expand operations both within their existing footprints and to serve new geographies. A similar narrative emerged within grains, as processors are struggling to keep up with new sources of demand as consumers discover the improved quality and taste of both ancient and modern varieties of grains and beans. A combination of debt, equity, and grants for technical assistance are needed to take these strong existing businesses and provide them the patient, flexible capital they need to expand.

- **Supporting entrepreneurship and new businesses** – Farmers and ranchers are increasingly adding value-added processing to their operations in order to capture margins. Further, motivated entrepreneurs have identified the increasing demand for regeneratively produced products and the huge infrastructure gaps that exist to get products to market. In addition to technical support needed to refine and strengthen business plans, patient capital structured as recoverable grants and revenue-based financing paired with more
traditional equity and debt investments is needed to launch these new businesses.

- **Cross-sector integrated capital** – In addition to direct investments or other types of supporting capital in new or existing infrastructure-focused ventures, we identified several categories of enabling (soft) infrastructure that is also in need of capital to provide support to these businesses to grow and strengthen markets. Investing in these resources will likely have material benefits to any return-seeking investments made in this space. Specific areas of investment that cover the investment spectrum from grants to equity investments include:

  a. Increasing access to high-quality technical assistance, financial planning, and business plan development needed to take great ideas, assess product-market fit and provide the preparation needed to receive and steward external capital.

  b. Support nascent community building and information sharing between practitioners. Resource sharing could include plans and designs for facilitates and their management, as well as approved food safety plans required under the Food Safety Modernization Act (FSMA).

  c. Market development support, inclusive of media and creative strategies, policy support, advancing institutional procurement, and assessment and communication of the full suite of benefits of regenerative agriculture value chains that can build Soil Wealth.

  d. Research and development activities across the public and private sector are needed to advance other barriers across the regenerative agriculture value chain inclusive of farmer recruitment, land access, crop and livestock variety development, next-generation processing equipment, and advanced data and sectoral analytics.

While the COVID-19 pandemic has certainly created new challenges for many of us, it has also exposed the shaky foundation on which much of our agricultural system is built on. Our community continues to advocate for advancing the development a more regenerative agricultural system that works for people and planet, now and for generations to follow.

1 A rising tide lifts all boats.
Relevant Initiatives

Organic Agriculture Revitalization Strategy (OARS)
OARS is an initiative that seeks to take advantage of growing consumer and investor interest in organic food and agriculture – now nearly a $50 billion mainstream market – and use it as a strategy for revitalizing rural communities and supporting regional economic development. Developed by Croatan Institute and Earthwise Organics with initial support from Organic Valley’s Farmers Advocating for Organics program and a growing group of partners, OARS aims to identify investment opportunities in regional value chains and to mobilize capital to help build community health and wealth.

Regenerative Organic Agricultural Districts (ROADs)
Croatan Institute is developing the concept of Rural Regenerative Organic Agricultural Districts (ROADs) to help agricultural producers and landowners finance soil wealth using land-secured financing mechanisms and other place-based investing approaches. As part of Institute’s Organic Agriculture Revitalization Strategy (OARS), ROADs will unlock new sources of capital for implementing conservation practices for regenerative agriculture. With support from USDA NRCS, Patagonia, and 20 private sector and non-profit partners, ROADs seeks to accelerate the development of regenerative agricultural systems at a pace and scale needed to stem the tides of soil degradation and rural economic decline.

Additional Resources

Transformational Investing in Food Systems Initiative
Foundations, impact investors, high net-worth individuals, and others motivated to help grow the regenerative agriculture sector are encouraged to learn more about the Transformational Investing in Food Systems Initiative and the communities of practice they support.

Global Alliance for the Future of Food
The Global Alliance for the Future of Food is a strategic alliance of philanthropic foundations working together and with others to transform global food systems now and for future generations.

Funders for Regenerative Agriculture
Funders for Regenerative Agriculture (FORA) is a five-year initiative creating affiliations with multiple funder networks to inform, educate, organize, provide collaborative opportunities, and recruit new members in support of regenerative agricultural systems.
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For more information, please visit:
www.CroatanInstitute.org