Regenerative Agriculture

AN AGRICULTURAL MOVEMENT'S ALIGNMENT WITH FARMED ANIMAL WELFARE

FARMFORWARD

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An agricultural movement's alignment with farmed animal welfare

INTRODUCTION

This report provides an analysis of the opportunities for alignment between the Regenerative Agriculture (RA) movement and the Farmed Animal Protection movement (FAPM). Farm Forward was commissioned to create this report by a client in the funding community. It has been condensed and edited for a larger, but still targeted, audience: funders and advocates who work, or who are interested in working, at the intersection of farmed animal protection and regenerative agriculture. In particular, our imagined reader is someone who already shares certain values with the FAPM—a concern for the suffering of farmed animals, for example—but is unfamiliar with the history, politics, structures, and ideologies that have driven farmed animal protection work in certain directions. We hope this report will facilitate greater investment and participation in farmed animal protection work—and in strategies that involve the RA movement—by helping interested parties identify entry-points for engagement with advocacy groups.

This project was conducted over several months and was motivated by our client's interest in understanding:

A. The broad landscape of the RA movement.

B. How RA actors incorporate farmed animal welfare into their models or understand farmed animal welfare as central to their missions.

C. Barriers to scaling RA.

D. Opportunities for scaling RA.

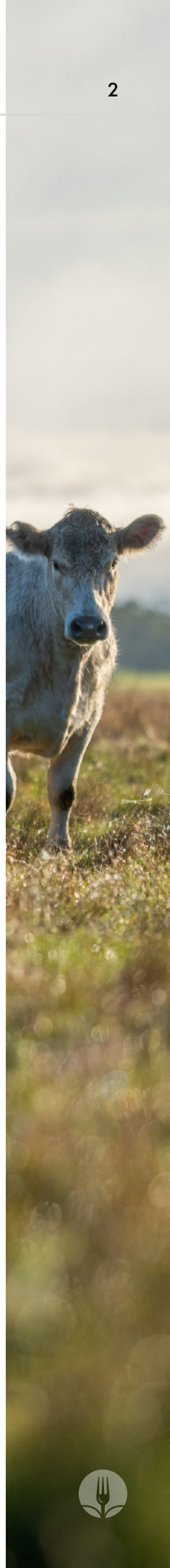
We limited the scope of our research to activities taking place in the US. Our methodology included conducting interviews with people working within the RA space, consulting scientific and expert research, and referring to publicly available 990s and nonprofit websites. We also draw upon the direct experience of our team.

Farm Forward is a mission-driven nonprofit advocacy organization that both conducts direct advocacy campaigns against factory farming *and* provides strategic consultation to advocacy groups, funders, and businesses around farmed animal protection issues. We do not claim to be disinterested parties—rather, a strength we bring to this project is our team's deep experience as FAPM insiders, including the relationships, insights and intuitions won over years of direct engagement with farmers, companies, and advocacy groups. We also assume certain values on the part of our reader: that the welfare and well-being of farmed animals matters, and that advocacy work which centers farmed animals merits more robust funding and support.

This report is *not* meant to provide a comprehensive or definitive description of all RA activities. It has focused, instead, on answering certain questions that are of especial interest to our client, whose central aim is to advance farmed animal welfare. Because we conducted this project with the assumption of certain shared values with our reader, we were able to leave out some more granular analysis and data that would be expected in a report claiming academic objectivity.

We have attempted to be transparent when we are expressing Farm Forward's *informed opinions* as well as observations based on our own experience rather than outside research or interviews (usually through footnotes). We have also attempted to provide data that is accurate and included citations so that readers can conduct their own research.

One thing to note is that we conducted most of this research prior to the global outbreak of COVID-19, which has dramatically altered the economic landscape in which regenerative agriculture operates. Economic and political decisions being made now and in the near future will play an important role in determining which models of agriculture grow or shrink in the US, and we may face a different regulatory climate for agriculture in the US than we have in the past. While we have incorporated new data into this report wherever possible, we cannot predict the state of regenerative agriculture in the years to come, and we think it is highly worthwhile to revisit many of the questions in this report again in the future to see how their answers may have changed in post-COVID-19 America.



REGENERATIVE AGRICULTURE

Executive Summary

Opportunities and possible future explorations

FINDINGS AND OPPORTUNITIES

There are six main findings described in this report:

1. The regenerative agriculture movement is not monolithic—it includes organizations, companies, and people concerned primarily with conservation agriculture practices (e.g. no-till farming, cover cropping, etc.) and, in contrast, groups that define regenerative agriculture as a holistic ideology (often represented by the "food sovereignty" movement) that reorients agriculture toward ecological farming, fair labor practices, and animal welfare.

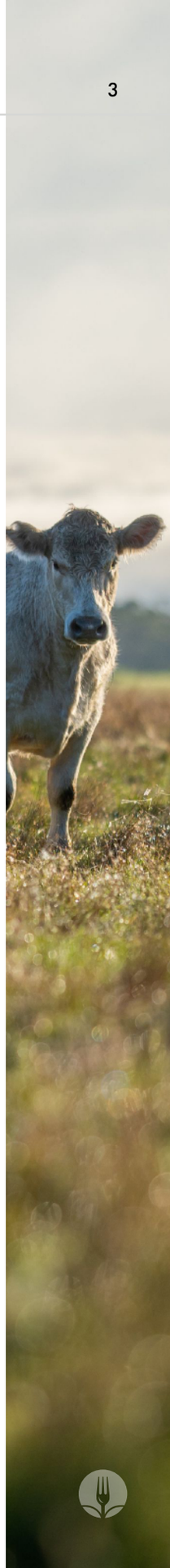
2. Regenerative farms exist throughout the nation and are often clustered around "hubs"—successful regenerative operations that attract and support other farmers.

3. Although food companies and investors have sufficient interest in regenerative crop practices to ensure that many regenerative crop practices will be widely adopted, few programs or financial incentives encourage farmers to adopt high welfare regenerative animal agriculture specifically.

4. Most successful regenerative animal farmers focus on raising ruminants. There are fewer models for successful regenerative farms raising primarily high welfare poultry and pigs, with several notable exceptions. It may be impossible to scale regenerative poultry and pig operations to meet the current US demand, so we must reimagine our diets, collectively, to make them compatible with a regenerative future.

5. Today, a lack of consumer demand for regenerative products has limited the growth of the regenerative market, but few groups dedicate resources to increasing consumer demand. This is an area for potential investment.

6. The regenerative farming movement and farmed animal protection movement can be natural allies on institutional food policy programs, cause marketing, and corporate campaigns; however, vegan advocates and food technology companies (plant-based and cultured foods) are unlikely to collaborate with the regenerative movement.



We identify several low-hanging fruit opportunities for funders and advocates, as well as recommendations for future work, including:

1. Support the Regenerative Organic Certification (ROC) to ensure that it includes and maintains high animal welfare standards, and help ROC establish "hubs" for farmer training and education.

2. Support leading regenerative entrepreneurs as they build new markets for regenerative products, and help develop infrastructure to bring new businesses to the space.

3. Increase consumer demand for regenerative products, perhaps by focusing on specific geographic locations. Few groups have the resources to launch large scale public engagement campaigns focused on building consumer demand for regenerative products, so these efforts remain underdeveloped and underfunded.

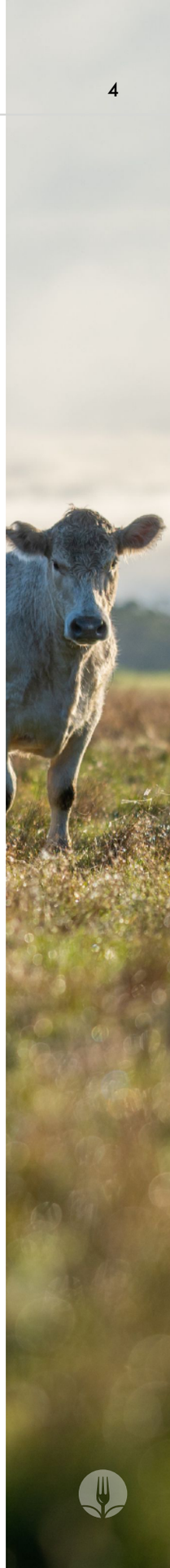
4. Support grassroots activism—especially rural and agricultural groups—that builds community and political support for reforming agriculture.

5. Engage with the animal protection movement on mutually beneficial campaigns. Consider including high welfare regenerative standards in future corporate campaigns.

6. In the aftermath of the COVID-19 crisis, many regenerative farmers face serious, even existential, financial strain. Direct support to farmers and long term investment in infrastructure are critical steps to sustain new and emerging regenerative farmers and help build resilience for the future.

AREAS FOR FUTURE RESEARCH

This report evaluates the impact that the proposed strategies would have on regenerative agriculture, animal welfare, and dietary culture in the US. Not included in this report, but worth considering, is an evaluation of how engagement with regenerative farming in the US fits into animal agriculture systems globally. What is the impact (if any) of, for example, US dietary practices and agricultural policies on global supply and demand for animal products? Is the regenerative model being created in the US relevant in international context? How might advocates and funders align their regional work with global strategies?



REGENERATIVE AGRICULTURE

An Introduction to Regenerative Agriculture

INTRODUCTION

Regenerative agriculture—and the sustainable, higher welfare, and small farming movements which it intersects—is complex and evolving. Even among insiders, the term *regenerative* can mean different things in different contexts, and the regenerative movement has yet to coalesce around a shared consensus of what is and is not included in this category. (For example, can the term only be applied to raising ruminants, or can it also be applied to poultry and pigs?) Below we describe the different approaches being taken to define and organize around the term.

In the absence of a single set of formal standards that define regenerative agriculture, our research for this report was guided by an understanding of regenerative agriculture as agriculture that is centered on the holistic concern for soil, natural resources, animals, and humans working the land. Many of the practices championed by the contemporary regenerative agriculture movement have Indigenous origins. Native Americans advanced many practices that define sustainable and regenerative agriculture, including agroforestry, intercropping, and silvopasture.[01] Some farms and organizations included in the report do not

use the term 'regenerative' to describe themselves, but are included because their practices appear to align with these values. We have also included information about farms that have embraced the term but may not fully embody all of these values.

While animal welfare is not yet a central component of the regenerative movement, portions of the movement do align themselves with the values and goals of farmed animal protection. Yet the farmed animal protection movement (FAPM) provides very little direct support for regenerative agriculture because most FAPM groups, and their funders, oppose animal agriculture in any form.[02] Because animal welfare is embraced by some in the regenerative agriculture movement, and is a familiar concern to all within it, FAPM advocates should not overlook the opportunity to ensure that the regenerative agriculture movement centers animal welfare, and to support collaboration between the FAPM and regenerative advocates.

DEFINING REGENERATIVE AGRICULTURE

Summary: Sustainable agriculture focuses on maintaining the integrity of natural systems (for example, soil, water, biodiversity, and carbon). Regenerative agriculture, a subcategory of sustainable agriculture, goes further and aims to restore those systems. While farmed animal welfare is not a central focus of sustainable agriculture, many within the regenerative movement hold animal welfare as a core value. Some regenerative agriculture projects—such as Regenerative Organic Certified and the Land to Market Certification from the Savory Institute—have explicit standards or requirements that protect farmed animals, but animals raised in regenerative systems may still suffer unnecessarily. Work is still needed to entrench farmed animal welfare in the regenerative agriculture movement.

Broadly speaking, regenerative agriculture describes systems of agriculture that restore and enhance ecological systems (soil, land, wildlife habitat, water quality, etc.). According to the Regenerative Agriculture Initiative at California State University Chico, regenerative practices:

> (i) contribute to generating soils and soil fertility, (ii) increase water percolation, water retention, and clean and safe water runoff, (iii) increase biodiversity and ecosystem health and resiliency, and (iv) invert the carbon emissions of our current agriculture to one of remarkably significant carbon sequestration.[03]

Much of regenerative agriculture is focused on practices that improve soil quality. Regenerative advocates promote practices like no-till planting and the use of perennial crops (like Kernza, for example), many of which do not involve livestock. Some models of regenerative agriculture include the use of livestock, mostly ruminants, who graze on farmland and are an integral component of rotational crop systems. Models of "intensive rotational grazing" or "holistic management" move ruminants, and sometimes poultry, around a pasture to disturb soil with their feet and deposit fertilizer in the form of manure (Figure 1).[04]

Two organizations, the Savory Institute and the Rodale Institute, have pioneered models of regenerative farming that integrate crops and rotationally grazed animals and have conducted long

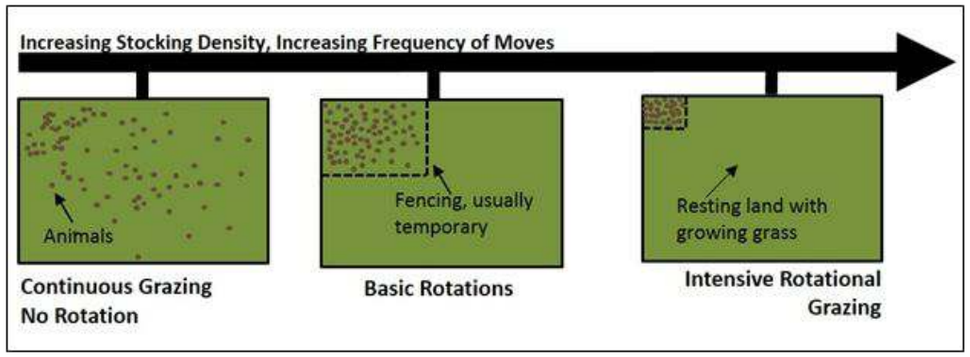


Figure 1 – Models of Rotational Grazing

term research measuring the extent to which these practices impact farm productivity, profitability, water quality, and soil carbon. Both organizations have published technical papers and peer reviewed research that appear to demonstrate the positive impacts of their models.[05] [06] The Savory Institute has pilot projects all over the globe that they claim demonstrate the potential for regenerative grazing to restore degraded landscapes and produce healthier crops and livestock (Figure 2).[07] Both the

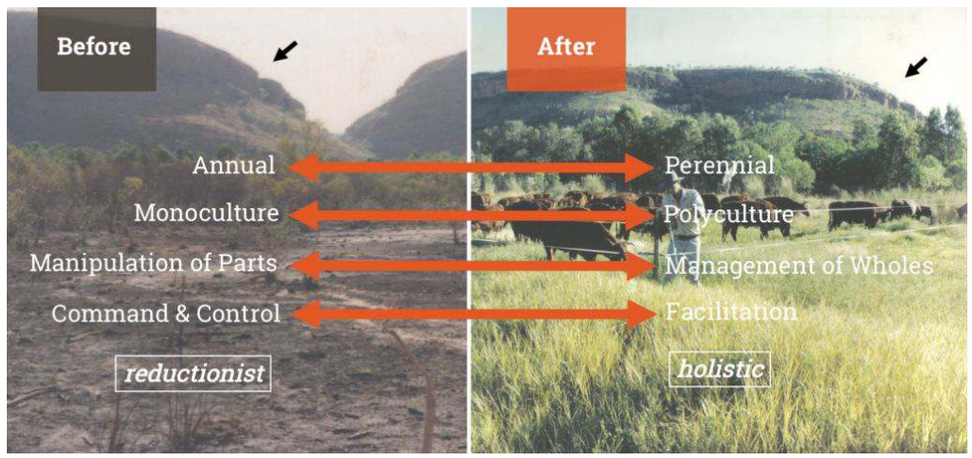


Figure 1 – Savory Institute Grazing Model

Savory Institute (Land to Market Certified) and the Rodale Institute (Regenerative Organic Certified) have launched certification programs that verify that farmers follow regenerative tenants. Of the two certifications, Regenerative Organic Certified has explicit standards for farmed animal welfare and the program aligns with leading farmed animal welfare certifications, such as Global Animal Partnership and Animal Welfare Approved (Figure 3).[08]

REGENERATIVE AGRICULTURE IS DIFFERENT THAN SUSTAINABLE AGRICULTURE

Sustainable agriculture is typically defined as agriculture that preserves and supports the environment, is economically viable, and benefits farmers, workers, and farming communities. The US government defines sustainable agriculture as:

an integrated system of plant and animal production practices having a site-specific application that will over the long term:

A. *satisfy human food and fiber needs;*

B. *enhance environmental quality and the natural resource base upon which the agricultural economy depends;*

C. *make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;*

D. *sustain the economic viability of farm operations; and*

E. *enhance the quality of life for farmers and society as a whole.*[09]

Figure 3 – Regenerative Organic Certified (ROC) Makes Use of Welfare Certifications

Notably, the welfare of farmed animals is not mentioned in the USDA's definition, nor is it mentioned in the definition of "sustainable agriculture" put forward by the University of California's Agricultural Sustainability Institute, housed at the University of California, Davis. The only section of the Institute's website focused on animal agriculture, titled "Animal Production Practices," takes a weak stance on the treatment of farmed animals, saying about concentrated animal feed operations (CAFOs),

> Animal health and waste management are key issues in confined livestock operations. The moral and ethical debate taking place today regarding animal welfare is particularly intense for confined livestock production systems. The issues raised in this debate need to be addressed."[10]

The sustainable food movement's lack of concern for farmed animal welfare has led some people who had been active in the movement to seek other movements and alternative systems that center animal welfare.

HOW REGENERATIVE AGRICULTURE ALIGNS WITH FARMED ANIMAL WELFARE

Summary: Although farmed animal welfare is widespread in regenerative agriculture as a personal value, implementation varies. Ruminants such as cattle are central to many regenerative farms and often enjoy the highest welfare; poultry are less commonly raised in significant numbers and suffer poorer welfare outcomes. Significant work is needed to firmly entrench farmed animal welfare as a defining principle of the regenerative agriculture movement.

Farms that use regenerative practices are typically committed, at least rhetorically, to farmed animal welfare, and most regenerative farms are designed in ways that give farmed animals considerably better lives than industrial farms. Specifically, regenerative farms raise ruminants on pasture where they can express most natural behaviors and avoid the confinement and crowding experienced by most cattle who are typically sent to feedlots. Many within the

regenerative movement consider themselves to have a significant commitment to farmed animal welfare. Regenerative farmers and ranchers in particular see themselves as advocates for farmed animals because they provide individual care for animals and choose farm practices that are significantly more labor intensive than industrial agriculture. However, the regenerative movement's commitment to animal welfare is not universally held or applied, and farmers may accept some amount of suffering as necessary for their economic viability. Sometimes farmers and ranchers make compromises they attribute to structures outside of their control, including access to high welfare genetics, consumers' unwillingness to pay higher prices, proximity to slaughterhouses with higher welfare technology, etc.

The animal welfare compromises made by some regenerative farms are particularly evident within poultry operations. One high profile example is a model of poultry farming popularized by Polyface Farms, a farm in Virginia that gained national recognition in the documentary *Food Inc.* Since the release of the film, Polyface's founder, Joel Salatin, has become a spokesperson for a model of pasture-based farming that rotationally-grazes poultry and ruminants on grassland.[11] Polyface's goal is to improve soil quality, give animals opportunities to express their natural behaviors, and create a sustainable business that enables farmers and rural communities to thrive. Polyface raises ruminants on pasture—which almost certainly offers better welfare than industry standard practices—and raises fast-growing hybrid chickens (Cornish Crosses) in "chicken tractors," which are simply wire pens on wheels, allowing farmers to move birds across a pasture. Cornish Cross strains are designed to maximize feed efficiency and to reach market weight in as little time as possible. Due to their aggressive growth rates they suffer a wide range of health and welfare problems, and generally are not able or intended to thrive outdoors on pasture. It's possible that raising Cornish Crosses outdoors could result in poorer welfare outcomes than if the birds were raised indoors in a conventional chicken house.

Even if Cornish Crosses were capable of equal or better welfare outcomes when raised on pasture, they would still suffer serious welfare issues due to their genetic limitations. Polyface chooses not to raise higher welfare strains of birds, perhaps because they are less feed efficient and thus more expensive to produce. Consumers have come to expect chicken to be inexpensive, and many may not accept the higher cost of products from slower growing birds raised on pasture. Many regenerative producers have followed the Polyface model.

Further, it's not clear that raising fast-growing chickens is consistent with other broad tenets of regenerative agriculture. One of the side effects of selecting for fast growth has been that the animals need a high energy feed, primarily derived from corn and soy. Feeding chickens and turkeys a more diverse grain mixture consistent with a regenerative cropping system (including primarily small grains such as winter wheat, durum, sunflower, lentils, lupin, hemp, etc.) requires that birds have healthier genetics, with digestive systems capable of processing feed with lower energy density.

Although farmed animal welfare is established as a more widespread value in regenerative agriculture than in sustainable agriculture generally, significant work is still needed to firmly entrench farmed animal welfare within regenerative agriculture.

REGENERATIVE AGRICULTURE AS A SET OF PRACTICES VS. A POLITICAL IDEOLOGY

Summary: Different organizations understand "regenerative agriculture" differently. Some see regenerative agriculture as a set of practices, others more as a holistic political ideology. Potential partners who see regenerative as a set of practices include environmentalists and climate change advocates, private agricultural companies trying to reduce their carbon footprint, and companies intending to sell carbon sequestration "credits." Potential partners who see regenerative as a political ideology tend to identify with the global food sovereignty movement. Groups that see regenerative as a political ideology are more likely to advocate and support higher welfare animal agriculture.

REGENERATIVE AGRICULTURE AS A SET OF FARMING PRACTICES

Some groups involved in the regenerative space today define "regenerative agriculture" as a set of specific agricultural practices which improve soil health, increase agricultural productivity, and reduce the amount of artificial fertilizers, pesticides and herbicides needed to grow crops. Regenerative practices include "no till" agriculture, planting cover crops such as oats and clover, and applying manure as fertilizer. Groups that consider regenerative agriculture to be a set of agricultural practices rather than a political ideology may be less likely to ally themselves with the animal protection community, since animal welfare may not be a core motivation for their commitment to regenerative practices.

For example, environmental groups working to address and mitigate the impacts of climate change are paying new attention to regenerative practices (also sometimes called "conservation" practices). Environmentalists see regenerative agriculture—and regenerative cattle grazing in particular—as a means to reduce carbon emissions from agriculture and even reverse climate change by sequestering atmospheric carbon in soil, though it should be noted that the science on this is still emerging, and while there are some positive results, more research is needed to say definitively that regenerative grazing can be net carbon neutral.

A variety of agricultural and environmental groups are working to increase adoption of regenerative practices. Groups like the Perennial Farming Initiative (PFI) and Marin Carbon Project offer financial incentive for farmers who adopt regenerative practices. Restore California, an initiative of PFI, encourages restaurants to

offer a voluntary one percent surcharge to support healthy soils. Restore California plans to use the funds they raise to provide grants to farmers who implement regenerative practices that follow the guidelines of the California Healthy Soils program (which is a $5MM grant fund established by California's climate tax regulations that pays farmers to adopt carbon-sequestering agricultural practices).

Private companies are also developing financial incentives to encourage farmers to adopt regenerative practices. Indigo Agriculture launched a private soil carbon market called the Terraton Initiative, paying farmers up to $15 per ton of carbon they sequester in their soil by adopting regenerative practices. Indigo intends to sell carbon sequestration "credits" to companies seeking carbon offsets.

Large food and agricultural companies are also adopting regenerative practices. In 2019, General Mills (GM) committed to implement regenerative practices on one million acres of farmland by 2030. Their commitment includes a $650,000 grant to Kiss the Ground, a nonprofit focused on training farmers on regenerative practices. Shortly after GM's announcement, Kellogg's, Danone, Unilever, and other companies launched the "One Planet Business for Biodiversity" coalition (OP2B) with a commitment to improve biodiversity by stopping deforestation and scaling regenerative agriculture among their suppliers. Land O'Lakes, one of the largest dairy and agricultural companies in the US, announced "SUSTAIN," a conservation program with a focus on improving soil health and reducing carbon emissions. Their program offers up to $3MM in equity-based financing for farmers in their network to invest in conservation practices.

To date, most of these large food and agriculture companies' programs are vague insofar as they fail to specify particular conservation practices. It's unclear what if any impact these initiatives will have on animal agriculture.

The GM program aims to improve soil health by promoting biodiversity, including crop varieties and "grazing animals," but offers no specifics about what that means in practice.

The Land O'Lakes example is more concerning, as their program aims to improve soil health but does not mention anything about modifying their husbandry practices in ways that would give dairy cows access to well-managed pastures. Land O'Lakes may focus their efforts on integrating regenerative practices on farms raising animal feed. While adopting regenerative crop practices is important from a climate perspective, these efforts will have little or no impact on how animals are raised for food. For example, Van Beek Brothers' Dairy, a featured Land O'Lakes project, used a $1.5MM loan to install a methane digester on their dairy operation. Based on an analysis of satellite images of the farm, Van Beek Brothers' appears to be a conventional confinement dairy.

REGENERATIVE AGRICULTURE AS A POLITICAL IDEOLOGY

Other groups see regenerative agriculture as an integral part of a broader economic and political framework encompassing farmers, ranchers, workers, and consumers. First defined in 2007 in the Declaration of Nyéléni, this movement is sometimes referred to as "food sovereignty:"

> Food sovereignty is the right of peoples to healthy and culturally-appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations.

The food sovereignty movement includes groups of farmers, eaters, and agricultural and justice advocates from around the world who advance policies and practices that help communities define their food system for themselves.

The food sovereignty movement holds that food is a basic human right and insists that all people should have the right to produce food in ways that protect the environment and support economic well-being of farmers and workers.

The food sovereignty movement was born out of an international coalition called La Via Campesina ("The Peasant's Way") which formed in 1993 in response to international free trade agreements that pushed farmers to produce food for export. La Via Campesina includes more than eighty organizations globally and fights for fair prices, production controls, the ability to save seeds, food's exclusion from trade agreements, local control of natural resources, political and land rights for peasants and landless agricultural workers, and much more.

Some sustainable and regenerative farming groups in the United States are grounded in food sovereignty principles, such as the National Family Farm Coalition, Family Farm Defenders, Black Earth Farms, The Institute of Afrofuturist Ecology, Sylvanaqua Farms, Soul Fire Farm and the Regenerative Agriculture Alliance. All of these groups represent small family farmers and advocate for specific policy objectives, including: breaking up agricultural monopolies, living wages for farm workers, addressing systemic racism in our food system, Country of Origin Labeling (COOL), and fair prices for agricultural products (sometimes called "parity pricing," which sets a floor for the cost of agricultural products based on the cost of production). These policies seek to transform agricultural systems from maximizing production for the economic benefit of producers to producing food in ways that promote healthy people, the dignity of workers, and the environment and ultimately the creation of socially just communities.

As opposed to groups that see regenerative agriculture as a set of practices, groups that see regenerative agriculture as a political ideology are more likely to support higher welfare animal agriculture.

Higher welfare animal agriculture fits naturally with the movement away from maximizing profits and toward a larger set of humane and justice oriented social principles.

CHARACTERISTICS OF REGENERATIVE PRODUCERS

Summary: The most successful regenerative producers demonstrate a twin focus on building soil health and producing meat from ruminants (cattle and sheep); they enjoy direct relationships with individual and institutional purchasers, and seek opportunities for public engagement. It is a challenge for farmers to raise sufficient numbers poultry and pigs in higher welfare, regenerative conditions, but some strategies seem promising.

Because there is no set definition of the term "regenerative" (beyond the newly launched Regenerative Organic Certification), to evaluate characteristics of the most successful regenerative producers we evaluated only farms self-identifying as "regenerative," rather than farms describing themselves as "family owned," "organic," or "holistic." While the network of self-identified "regenerative" farms appears fairly small, other farms may follow regenerative practices but not yet identify with the term.

THE STRONGEST REGENERATIVE MODELS RAISE RUMINANTS

Farmers who have become leaders in the regenerative space have two things in common: they focus on improving soil quality, and their primary product is meats from ruminants (cattle and sheep). Farmers and ranchers from Brown's Ranch (Gabe Brown), White Oak Pastures (Will and Jenni Harris), Ranch Foods Direct (Mike Callicrait), BN Ranch (Bill Niman), TomKat Ranch (Tom and Kat Steyer), Paicines Ranch (Sallie Calhoun), Marksbury Farm, and Grassroots Coop are leading advocates for regenerative animal agriculture and focus on soil health and grazing ruminants.

Many of these farms market their products directly to consumers, local restaurants, and independent grocery stores. In some cases, these farms have relationships with local institutional buyers, including schools and universities. Several of these operations own their own slaughterhouses, which is a major advantage in controlling product cost and quality. Owning slaughter facilities is likely to be a key factor in allowing operations to scale and expand production.

Most leading regenerative farms and ranches invest resources in public engagement. Many offer tours and host educational events, and some rent their facilities for private events. Tours and public education, while not major money-makers for the operations, can be effective marketing strategies. TomKat and Paicines are connected to high net worth individuals and have dual missions as both active ranches and education projects; those connections allow the farms to operate with fewer financial constraints.

FEW GOOD MODELS OF REGENERATIVE POULTRY AND PIG FARMING

Due to barriers in infrastructure, knowledge, and animal genetics, it will be much more difficult to grow the market for poultry and pigs raised on regenerative, higher welfare farms than the market for ruminants. Today, Cooks Venture is the only poultry company raising higher welfare breeds of poultry fed with at least partially regeneratively-grown grain at a scale that could supply food service companies or national grocery chains. The Cooks Venture model is promising and could be replicated.

Chickens and pigs are monogastric ("one stomach") and in commercial settings eat primarily grain. While chickens and pigs can forage and will eat grass, forage is not the foundation of their diets, so regenerative farmers have to be motivated to integrate poultry and pigs into their rotational grazing systems. That said, pigs and chickens can be raised on pasture in rotation with crops and ruminants. Many regenerative farms raise pigs, poultry, and ruminants in rotation, though pigs and chickens are typically only a small part of the operation. Historically, farms in the US raised chickens and pigs mainly for personal and family consumption, so there are few "traditional" models of poultry and pig farming at a large enough scale to supply contemporary markets. The Regenerative Agriculture Alliance (RAA) is developing a regenerative permaculture model for raising poultry in conjunction with tree crops like elderberries and hazelnuts. Sometimes called "Tree Range" chicken, this model produces meat alongside high value crops like hazelnuts. RAA has several model farms and is seeking funds to build infrastructure and scale the model.

While their net impact is unknown, raising ruminants in regenerative systems is believed to have benefits for carbon sequestration, though the benefit for poultry and pigs is less clear. No studies evaluating the net carbon emissions of regenerative operations raising primarily pigs or chickens on pasture are available. According to Cooks Venture founder Matt Wadiak, raising poultry and pigs on pasture may *release* carbon as animals disturb the soil (through rooting, scratching, pecking, etc.), though their net carbon impact is unknown. Although rotating pigs and poultry with cattle can improve soil fertility (through nitrogen deposits), the overall carbon impact of a multispecies system is far less studied.

In terms of farmed animal welfare, however, raising relatively small numbers of pigs and poultry as part of a diverse operation that primarily grazes cattle on regeneratively cropped pasture has clear advantages.

Strategies for scaling these operations could include aggregating the products of multiple small farms through a marketing or farmer cooperative, or incentivizing existing cooperatives to adopt regenerative practices.

Presently, demand is a more pressing challenge for achieving scale. A sufficient number of consumers must be willing to pay higher prices for genetically healthy pigs and chickens raised on pasture and fed regeneratively grown feed.

GEOGRAPHIC DISTRIBUTION OF REGENERATIVE FARMING

Summary: Regenerative farms are flourishing all over the US. They often appear in clusters and are more common in warmer climates.

Geographically, adoption of regenerative practices appears to be fairly idiosyncratic—several regions are home to leading regenerative farmers. Regenerative and sustainable farms often cluster, radiating around key farmers who serve as models for their communities. In some regions regenerative hubs are anchored by specific companies or producer groups. Examples of hubs include:

- Eastern North Carolina, anchored by Hickory Nut Gap
- Georgia, anchored by White Oak Pastures
- Iowa, anchored by Rodale Institute Midwest Organic Center at Eztel Sugar Grove Farm and Coyote Run Creek Farm.
- Kentucky, anchored by Marksbury Farm
- North Dakota, anchored by Gabe Brown
- Northern California, anchored by LeftCoast Grassfed, Llano Seco, etc.
- Southern Minnesota, anchored by various producers including Regenerative Agriculture Alliance and their "Tree Range" poultry farms.
- Southern Wisconsin, anchored by many small family-run sustainable farms, many selling to Madison, Chicago, etc.
- Pacific Northwest, anchored by Ecotrust

Logistically, models of higher welfare regenerative animal agriculture are well suited to warmer climates where animals can be raised outdoors year-round, particularly for poultry and pigs. In Northern climates (Northern Midwest and New England) raising chickens and pigs on pasture is difficult for three to five winter months each year. In cold climates animals can be housed indoors, but maintaining higher welfare environments for large numbers of animals indoors is challenging. Raising cattle on regenerative farms in northern climates is more feasible. Brown's Farm, for example, raises cattle bred for hardiness outdoors in North Dakota through the winter. Regardless of their geography, regenerative operations need to be tailored to the climate, soil type, and specifics of the land in which they operate. Breed and crop selection, for example, should be driven by geographic and climate considerations.

COLLABORATION BETWEEN THE REGENERATIVE AGRICULTURE AND FARMED ANIMAL PROTECTION MOVEMENTS

Summary: Historically, collaboration between regenerative and farmed animal protection movements has been scant due to real and perceived incompatibilities. However, some joint ventures have been successful and additional opportunities exist, particularly through corporate campaigns, cause marketing, and institutional purchasing programs. Organizations focused on promoting food technology are unlikely to provide support for regenerative animal agriculture—in some cases these groups publicly oppose each other. Despite their differences, the animal protection and regenerative movements could benefit from increased collaboration.

While their visions for the future can appear incompatible, the regenerative and farmed animal protection movements (FAPM) agree that the dominant model of animal agriculture is unjust, unsustainable, and has disastrous consequences for animal welfare and the environment. Many groups in the FAPM believe that animals should not be raised for food, while most groups in the regenerative movement believe that animals are a core component of a healthy agricultural system. Because of these ideological differences, historically the FAPM has not built alliances with higher welfare animal farmers or grassroots, rural movements.

Collaboration between farmed animal advocates and farmers and ranchers is possible, and can be powerful, but work to bridge the ideological gap between agricultural and animal welfare groups would be required. One way to bridge this gap and foster collaboration is to make stringent animal welfare requirements central components of the regenerative model (perhaps via the Regenerative Organic Certification, for example).

Because the regenerative movement is seen by many in the FAPM as being fundamentally incompatible with animal protection, it's unlikely the FAPM will commit significant resources to promoting regenerative solutions that include animals (although they may promote regenerative crops for plant-based products). However, some animal protection groups do promote some strategies that include regenerative models. For example, Farm Forward and Compassion in World Farming have worked extensively with Global Animal Partnership (GAP), a multi-tiered certification that includes a small number of pasture-based farms, and a new certification, Regenerative Organic Certified (ROC). The success of ROC and the higher tiers of GAP could help create a market for pasture-based animal products—one that regenerative producers would be well positioned to supply. The American Society for the Prevention of Cruelty to Animals (ASPCA) also promotes products aligned with regenerative practices. For example, their Shop With Your Heart program encourages consumers to buy welfare-certified animal products, including (though not exclusively) those certified by GAP Steps 4 and 5 and Animal Welfare Approved, whose standards are closely aligned with many regenerative farms.

FAPM groups have also collaborated with regenerative farmers and advocacy groups to advocate for specific policies to improve farmed animal welfare, like California's Proposition 12 and the

USDA Organic Livestock and Poultry Practices rules. In these collaborations, the regenerative farming movement advocated for improved welfare partly as a way to help level the playing field with conventional producers. There are very few instances in which animal protection groups have supported the goals of the regenerative movement or promoted their practices and products directly.

Farm Forward and Compassion in World Farming are among the only groups in the FAPM that see highest welfare farming as part of the long-term solution to ending factory farming.

The FAPM and regenerative movements have some overlapping interests and could benefit from collaboration (Figure 4). FAPM strategies that lend themselves to collaboration with the regenerative movement include:

INSTITUTIONAL FOOD POLICY

Many groups pursue a "Less and Better" approach to institutional food policies that encourages buyers to consider both animal product reduction and certified higher welfare products. Animal protection groups with a "less and better" approach include Compassion in World Farming, Farm Forward, Friends of the Earth, and Health Care Without Harm. Encouraging these groups to include Regenerative Organic Certified (ROC) in their recommended certifications could help grow markets for ROC producers.

CAUSE-MARKETING FOR REGENERATIVE PRODUCTS

Most regenerative products emphasize health and environmental benefits in their marketing, but no robust marketing effort has emphasized regenerative products' animal welfare benefits. Such a campaign could serve the dual purpose of educating the public about the poor conditions of animals on conventional farms (a goal of many farmed animal protection groups) and growing the market for regenerative products. While many farmed animal protection groups would not consider participating in a "cause marketing" campaign with regenerative meat producers or

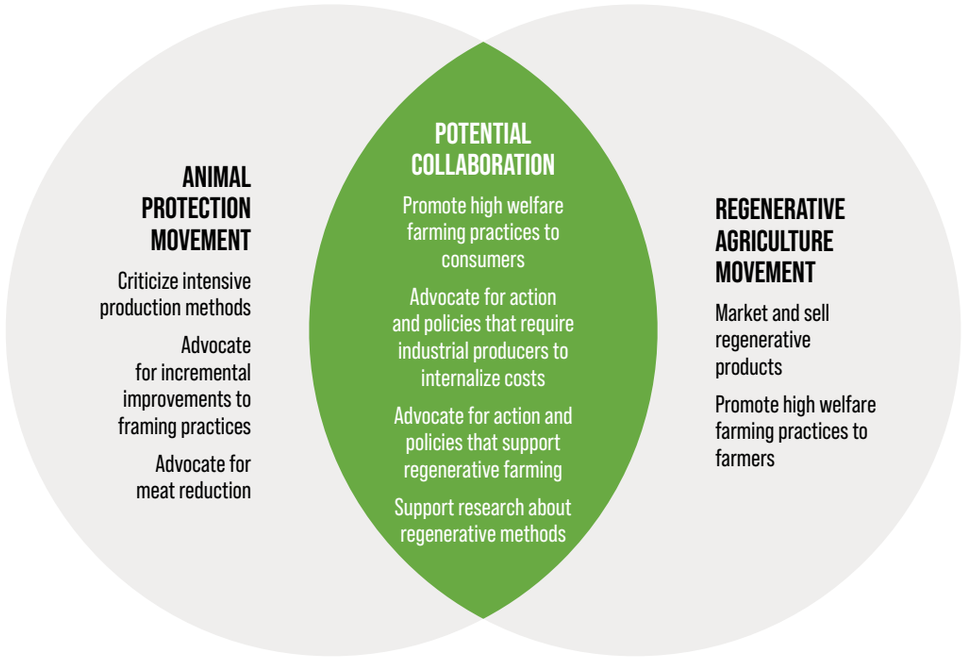


Figure 4 – Areas of potential overlap between FAPM and Regenerative movements

advocacy groups, a few (like the ASPCA) might, especially if the campaign has a strong anti-CAFO/welfare education component.

CORPORATE CAMPAIGNS

As discussed further in the "Collaboration Between Regenerative Agriculture and the Farmed Animal Protection Movements" section, future corporate campaigns could make regenerative principles part of their asks. This would be a significant departure from current trends in the FAPM corporate campaigns, which focus on "raising the floor" (eliminating the very worst welfare practices while leaving animals in low welfare systems) rather than "pushing the ceiling" (promoting high welfare alternatives), but may be possible.

Groups that see food technology—both plant-based and cultivated (lab grown) alternatives to animal products—as the most promising strategy to oppose factory farming are likely to be less enthusiastic about collaborating with advocates of regenerative agriculture. Many proponents of regenerative practices harbor animosity for food technology, which many view as antithetical to sustainable agriculture. The fact that many food technology companies rely on ingredients produced by industrial agriculture makes it difficult for regenerative farmers to view them as allies. Some food technology companies—Impossible Foods most prominently—have openly feuded with regenerative farmers.

Leaders within the FAPM and regenerative movements are not in regular dialogue, so a good first step could be to bring these movements together to explore possibilities.

If nothing else, collaboration between these movements could provide an opportunity for the farmed animal protection advocates to encourage the regenerative community to prioritize farmed animal welfare.

REGENERATIVE AGRICULTURE

Barriers to Scaling Regenerative Farming

SUMMARY

Building and scaling regenerative, higher welfare animal farming faces significant challenges including lack of financial incentives, a scarcity of knowledge and infrastructure, and low consumer demand. Financial incentives have motivated farmers to adopt regenerative practices for crops, and could possibly replicate this success for farmed animals. Funders and advocates should think carefully about what scale is appropriate for raising poultry and pigs in regenerative systems.

FINANCIAL INCENTIVES ESTABLISHED FOR CROP BUT NOT ANIMAL AGRICULTURE

US agricultural policy is tailored to commodity production—maximizing the number of bushels of corn, soy, and wheat per acre, and raising as many animals as possible as cheaply as possible—much of it for export (12-16 percent). With some exceptions, agricultural policies—everything from trade agreements to crop insurance programs—incentivize farmers and ranchers to maximize production, which often translates to using all available land for monoculturing the most profitable crops. In this system farmers have little short-term financial incentive to apply compost, keep land fallow, plant rotational or cover crops, or keep land in conservation plantings.

To create a major shift toward regenerative practices in crop agriculture, financial incentives would be required. Financial incentives could come in a wide variety of forms, including philanthropic grants, pension funds, real estate investment trusts, and private investment in climate change mitigation strategies.

For a more complete analysis of the investment strategies available for regenerative agriculture, see the "Soil Wealth" report published by the Croatan Institute. Notably, the report highlights that of the many investment vehicles focused on regenerative agriculture today, only 10 percent include farmed animal welfare as a value or investment criteria.

Some incentives have come from programs seeking to link regenerative practices to climate mitigation and carbon sequestration. Programs like the Perennial Farming Initiative and its Restore California project, companies like Indigo Ag, and a new crop-insurance program (described in the "Regenerative Ag as a set of farming practices" section) are all creating mechanisms to pay farmers to implement regenerative practices.

While there are established vehicles for incentivizing regenerative crop agriculture, no known programs incentivize higher welfare regenerative animal agriculture (though some financial incentive programs do include animals as part of their definition of regenerative agriculture). The lack of external financial incentives is likely a significant barrier inhibiting the growth and scaling of higher welfare regenerative animal agriculture.

KNOWLEDGE AND INFRASTRUCTURE ARE NEEDED TO ACHIEVE SCALE

Scaling regenerative agriculture also faces a variety of operational challenges, many of which are the same issues that sustainable farmers and ranchers have faced for decades: the lack of specific knowledge and research for their field, access to and high costs of processing infrastructure (slaughter, post processing, etc.), and a lack of aggregators and distributors.

Scaling higher welfare regenerative poultry operations will be especially difficult because of the scarcity of breeding operations with appropriate genetics. Virtually all poultry genetics are owned by two companies, Aviagen and Cobb, and only Aviagen (through their subsidiary Hubbard) offers slower growing strains suited to life on pasture. Outside of Aviagen, only Cooks Venture and a small number of heritage poultry breeders own and control their own genetics and prioritize the ability to thrive in pasture environments.

CONSUMER DEMAND

Insufficient consumer demand is also a significant barrier to scaling regenerative agriculture. In the next section we explore this issue in more detail.

REGENERATIVE AGRICULTURE

Advancing Regenerative Agriculture with Producers, Retailers and Institutional Dining Services

SUMMARY

In addition to financial incentives, the adoption of regenerative practices can be accelerated by cultivating markets for regenerative products. Retailers—particularly independent co-op grocers—show willingness to stock and market regenerative products, and approaching them systematically could help achieve scale. Finally, institutional dining policy can be influenced by value-based institutional food programs akin to models like the Real Food Challenge and Good Food Purchasing Program, which currently lack regenerative components.

PRODUCERS

Three interventions could encourage farmers and ranchers to adopt regenerative practices: financial incentives, access to markets, and trainings.

Financial incentives are the most promising intervention to encourage producers to adopt regenerative practices for growing crops. Creating financial incentives could encourage more farmers and ranchers to rotate cattle on pasture. Other financial incentives are discussed above in the section titled "Regenerative agriculture as a set of farming practices," and include more funding for USDA conservation grant programs and payments for soil carbon sequestration.

With incentives in place, the next most impactful intervention would be providing access to established markets. Farmers and ranchers may adopt regenerative crop practices, but if they don't have a market to sell grass-fed, grass-finished beef, they might simply sell cattle into the commodity market (where they would go to feedlots for finishing and sales).

If farmers and ranchers had access to a marketing cooperative that would buy, process, and market their cattle, many more would take that option (especially if they received a premium for the product).

The success of companies like Niman Ranch, Vital Farms (which recently became public traded on the NYSE), and Marksbury demonstrate that some farmers will adopt higher welfare practices if they have access to a market that enables them to make a profit on higher welfare practices. Building and growing new marketing cooperatives for regenerative products is no small task; and today there is little in the way of an ecosystem to help agricultural entrepreneurs start, grow, or scale those businesses. Examples exists, such as the Food System 6 business accelerator or B Labs (a project of the B Corporations movement), are relatively small or underfunded.

With sufficient financial incentives and demand for regenerative products in place, farmer training could accelerate adoption of regenerative practices. As noted in the section above "Geographic distribution of regenerative agriculture," the phenomenon of regional hubs of regenerative farms is due to the hands-on training and support offered by communities of farmers, which can also function as recruitment centers for future farmers. For example, Ecotrust has an Ag of the Middle Accelerator project that is a two-year business development program for mid-sized producers in the Pacific Northwest.

Regenerative Organic Certified has proposed similar hubs in the US. Hubs that offer training focused on regenerative practices incorporating animals in higher welfare conditions would be effective in encouraging more farmers and ranchers to adopt these practices.

RETAILERS

New advocacy strategies are needed to encourage retailers to favor regenerative products. Today the most common retail advocacy models are negative campaigns targeting specific welfare issues (for example, Crate Free Illinois's campaign seeking commitments from Aldi and Trader Joe's to stop selling products from pigs raised in gestation crates). Animal protection groups have also run campaigns encouraging the public to request that retailers carry more plant-based and higher welfare products. The ASPCA's Shop With Your Heart campaign, for example, provides resources to help consumers encourage their local grocery stores to carry certified higher welfare products. The impact of these consumer campaigns is unstudied, and further research is needed to evaluate whether consumer pressure and advocacy campaigns can increase retailers' willingness to carry regenerative animal products.

In the short term, it's unlikely that large national retail chains will play an active role in building the market for regenerative animal products.

While some retailers may carry one or more regenerative animal products, they are almost always niche products targeting the small group of shoppers willing to spend significantly more for higher welfare and sustainable products.

Whole Foods Market (WFM), which has historically been a major retail source of "premium" animal products, could contribute to the growth of the market for regenerative animal products, though their role is complicated. On one hand, WFM has begun marketing regenerative products, and prior to the coronavirus pandemic predicted that regenerative foods would be one of the top 10 food trends for 2020. On the other hand, higher welfare farmers and ranchers have stated that WFM has failed to pay a sufficient premium for higher GAP Step certified products, instead showing preference for larger—and lower Step certified—producers.[12] Still, by advertising regenerative products, WFM may help popularize the term and build consumer demand for these products, even if they don't make them widely available at WFM. It may also be possible that WFM could be motivated to carry and market more regenerative animal products—either through increased consumer demand or pressure from advocates.

Alternative retailers, both online and physical, are more likely to offer regenerative products. Patagonia Provisions is the first retailer to offer a collection of Regenerative Organic Certified products. Similarly, high-end meal delivery services like Green Chef, which offers meals with grass-fed beef, could be an outlet for regenerative products and help educate consumers about the benefits of regenerative products.

The most promise lies with independent grocery stores, especially those that are cooperatively owned. There are at least 290 co-op grocery stores in the US, representing $2 B in annual sales, and their stated missions often include social and environmental values.

Many co-op grocery stores feature products from local farms and ranches. Some co-op grocery stores have hosted programs and events to support regenerative agriculture, and there appears to be an appetite for more.

The National Co+op Grocers (NCG), an association of co-op grocery stores, has efforts underway to promote regenerative agriculture and products. NCG's Business Development Manager, Heidi Traore, stated in an interview:

> In our co-ops, popular products skew toward those that have a more sustainable trajectory or supply story... We've partnered with brands to do 'cause promotion.' In a cause promotion, the brand will agree to give a certain percentage of their sales to a cause; for example, we've done this with the Organic Research Organization... We've also hosted a panel discussion at Expo West [a natural products trade show] geared toward regenerative ag, and what was going on in that space and the supply chain.

INSTITUTIONAL DINING SERVICES

Significant barriers limit the ability of institutions to source alternative, higher welfare products. The most significant barrier is the contracts that food service providers have with commodity meat companies. The most effective institutional interventions create new contractual requirements for food service providers to source alternative products. For example, the University of Kentucky's (U of K) contract with Aramark, their foodservice provider, included the requirement that Aramark source a certain percentage of food from Kentucky farms and ranchers, which led to the creation of the U of K's whole animal program. Without the local sourcing provision, it's likely that Aramark staff at U of K would have been prohibited from purchasing products from local, higher welfare farms. Contract provisions can require local purchasing or other values-based purchasing requirements, such as favoring regenerative practices, but purchasing contracts must be modified to accommodate them.

Programs like the Real Food Challenge RFC are working to change food service contracts on college campuses. Since 2008, 82 institutions have adopted RFC standards, which RFC estimates equates to $82MM per year in food purchased. Many universities who have adopted RFC standards have incorporated them into their contracts with their food service providers. The impact is substantial. Based on RFC's estimate, 13 percent, or $10.6MM in annual purchasing, goes to products meeting improved standards for animal welfare. About 53 percent of "Real" food (~$43MM annually) comes from "local and community-based" producers.

The top three "Real" products are local produce, local dairy, and local meat. RFC's standards for "local" products disqualify products from CAFOs, so it's possible that up to an additional

$10MM in annual purchasing goes to small, uncertified but higher welfare operations. One producer featured by RFC, Yellowstone Grassfed Beef, a ranch that purports to follow regenerative practices, credits their company's success with their relationship with University of Montana. Terry Hollingsworth, Operations Manager at Yellowstone Grassfed Beef, said: "Especially in the first couple years, they [University of Montana] were a significant purchaser of ground beef . . . at the time, they were our first large ground beef customer, which allowed us to get to significant volume fairly quickly with our other cuts because we could sell the ground."

Other institutional food programs—including the Good Food Purchasing Program (GFPP), which is typically adopted by cities and school districts—may have a similar impact on encouraging local sourcing. However, because GFPP works with mostly schools and cities, which tend to be cost constrained, the higher cost of regenerative products can pose a problem. Regardless, interventions that create contractual requirements for food service providers to source higher welfare regenerative products could be among the most effective drivers of regenerative farming.

REGENERATIVE AGRICULTURE

Growing Demand for High Welfare Regenerative Products

SUMMARY

At this point, building consumer demand for regenerative products is likely more urgent than increasing supply. Most regenerative advocacy organizations recognize the critical importance of building consumer demand but lack resources to shift focus away from supporting regenerative farmers. Consumer education efforts (for example nutrition guides, apps, and websites), where they exist, are under-funded. Food policy councils and purchasing programs are promising models.

CONSUMER DEMAND MUST GROW

Because "regenerative" is a new term, consumers' lack a solid understanding of regenerative practices and have little motivation to seek out regenerative products. According to a 2019 survey conducted by the International Food Information Council Foundation, only 22 percent of those surveyed had heard of the term, while 55 percent said they had not heard the term but were interested in learning about it. Until consumers

know more about regenerative agriculture, regenerative farmers will have little to gain by adopting regenerative practices. It's possible that producers will adopt regenerative practices for their intrinsic benefits (soil health improvements, reduced synthetic fertilizer costs, etc.), but wider consumer interest in the term would create a greater market incentive.

There are some signs of growing consumer demand for regenerative products despite little consumer awareness of the term.

The market for grass-fed beef grew 16 percent in the 52 months prior to February 2019, and 21 percent the previous year, representing $250MM in annual sales[13] (much of the supply of those products come from ranches in New Zealand and Australia that may or may not have adopted regenerative practices and higher welfare standards). In 2019, Applegate (owned by Hormel) launched a regenerative brand called New Food Collective that offers GAP Step 4 regeneratively-raised pig products, but so far the brand has limited (if any) distribution. Still, it's a sign that major meat companies see a consumer market for regenerative meat products.

Consumer demand—especially institutional demand—is a major barrier to increasing regenerative production. Hundreds of food companies have committed to improved standards for chickens under the Better Chicken Commitment, but the standards it requires fall far short of highest welfare or regenerative practices. Few groups within the FAPM have campaigned for welfare improvements that meet these highest standards, which is due in part to the bulk of funding being dedicated to campaign strategies that seek to "raise the floor" of animal welfare.[14]

If more funding were available for campaigns and public education promoting highest welfare standards, advocacy groups could be leveraged to grow consumer demand for regenerative agriculture.

FEW GROUPS ARE FOCUSED ON BUILDING DEMAND

Most of the organizations that work on regenerative farming in the US are focused on building supply by supporting farmers as they adopt regenerative practices (groups like Regenerative Organic Certification, Land Stewardship Project, Regenerative Agriculture Alliance, Perennial Institute, Marin Carbon Project, National Family Farm Coalition, Family Farm Defenders, and others). For regenerative agriculture to replace a meaningful percentage of the commodity meat market, supporting farmers is necessary but not sufficient.

When asked about efforts to increase consumer demand for regenerative products, most advocacy groups said that they recognized the importance of the goal, but few appear to be investing in projects that increase consumer demand.

There are a few exceptions. Food Animal Concerns Trust (FACT) and Crate Free Illinois describe specific resources, tools, and campaigns that could increase demand, though the organizations have not been able to invest in them sufficiently. FACT offers farmers animal welfare label guides and materials describing the nutritional benefits of pasture-based animal products, which farmers have told FACT are valuable marketing tools, but FACT lacks the capacity to plan a wider consumer education campaign about nutritional benefits of pasture-raised products. Crate Free Illinois built and launched a mobile app, Crate Free Illinois, which helps consumers in Illinois learn about and locate higher welfare farms, products, and restaurants; the organization would need further investment to promote and maintain the app, and to build programs around the technology to increase adoption (e.g. partnerships with grocery stores, earned media, etc.). Similarly, Farm Forward launched BuyingPoultry, a website that helped consumers learn about and locate higher welfare poultry and plant-based products in grocery stores. When first launched, the site attracted several thousand monthly visitors without paid advertising (due to a lack of resources). Other websites and mobile apps that market local and sustainable food include EatWild and LocalHarvest, though neither appear to have major investment or marketing campaigns behind them.

The National Family Farm Coalition (NFFC) identified secondary school and college education as avenues to create long-term demand.

NFFC believes educating young people on the impacts of industrial agriculture and the benefits of local regenerative food systems could drive behavior change.

Similarly, Crate Free Illinois runs a popular youth education program, called Critter Camp, which fosters compassion for farmed animals. The volunteer-run program has dozens of requests from schools and summer camps annually and could be a vehicle for education about regenerative agriculture. In the short term, NFFC has highlighted the potential for institutional purchasing programs, and sees the Good Food Purchasing Program as a means to increase demand for local products. According to NFFC, the national movement of food policy councils could help communities articulate and enact their own

values in local food systems. Food policy councils, including the LA Food Policy Council and the Chicago Food Policy Action Council, have played a key role in developing and advocating for the Good Food Purchasing Program, which is now a national model for building demand for higher welfare (though not necessarily regenerative) products.

LOW CONSUMER TRUST IN EXISTING LABELS

According to John Peck at Family Farm Defenders (FFD), "label fatigue" is a significant barrier to engaging consumers because consumers distrust the labels and claims on products. In the early days, FFD was supportive of the USDA Organic program and saw consumer interest in the organic label as an opportunity for independent, pasture-based farmers to differentiate their products. FFD credits much of the early success of the USDA Organic program to consumer education on the issue of Recombinant Bovine Growth Hormone (rGBH), a hormone given to dairy cows to increase milk production. The introduction of rGBH into the US in 1993 created significant public backlash and demand for organic dairy products.

The success of USDA Organic companies like Organic Valley helped grow a new market for dairy products now valued at ~$40 B annually. The growth of the organic food industry also attracted major agricultural companies that saw organic as a new market opportunity.

Over time, the USDA Organic regulations were modified to make it easier for larger, industrial-scale producers to become certified. Today, six huge USDA Organic dairies in Texas produce more milk than all of Wisconsin's 453 Organic dairies combined.

In response, groups like Real Organic Project campaign to raise consumer awareness about how little the USDA Organic has come to mean and encourage consumers to look elsewhere for sustainable, higher welfare products. Establishing a meaningful regenerative certification in the marketplace will be a long-term challenge, and it will take years to achieve widespread acceptance and adoption.

OPPORTUNITY TO ADVANCE NEW REGENERATIVE ORGANIC CERTIFICATION (ROC)

Mistrust of the USDA Organic label, combined with growing consumer demand for ethically produced food, has created an opportunity for a certification or certifications that better reflect consumers' values.

The Regenerative Organic Certification (ROC) could play an important role in establishing the term "regenerative" in the marketplace and creating a standard against which other "regenerative" claims are measured.

Founded on three pillars of soil health, animal welfare, and social fairness, ROC was built to address the environmental, social, and ethical implications of agriculture. ROC launched the first set of pilot-certified farms and brands in 2018, most of which are available for sale through Patagonia Provisions. Marketing of ROC products by companies like Patagonia, Dr. Bronner's Magic Soap, and Danone (all of which are involved in the program) can help build consumer awareness and, ultimately, demand for regenerative products. ROC Executive Director Elizabeth Whitlow notes that consumers, especially younger demographics, seek out information about their food and would gravitate toward an "all in one" label that addresses sustainability, climate, welfare, and worker justice.

Dozens of companies, including large food companies like Danone, have applied to be part of the ROC pilot. Since the pilot was launched, ROC has had heard from dozens of companies interested in using the label, including large cocoa coops in Sierra Leone, a large organic grain trader in the US, banana growers, coconut sugar producers, and a farmer's cooperative in India intercropping cotton with legumes and lentils. There is reason to be optimistic about the future of the ROC label.

REGENERATIVE AGRICULTURE

Opportunities to Support Highest Welfare Regenerative Farming

LOW HANGING FRUIT

Summary: The Regenerative Organic Certification (ROC) is poised to become the leading regenerative certification, but has not yet settled on animal welfare standards. Farmed animal welfare advocates could influence ROC to adopt high standards, and support farmers in meeting those standards, thereby influencing the definition and entire field of regenerative farming. Advocates could also help producers obtain ROC certification and assist ROC in establishing regional hubs. The Food Animal Concerns Trust (FACT) grant program could be supported in expanding its higher welfare grant program, and its new grants responding to the COVID-19 epidemic.

Based on our research and interviews we've identified several impactful organizations and interventions that would benefit from immediate support. Our observations about low-hanging fruit are not exhaustive—there's no doubt that additional interviews with groups would have uncovered other

projects that would benefit from immediate support—but this short list should be useful.

REGENERATIVE ORGANIC CERTIFICATION

The Regenerative Organic Certification (ROC) is still being developed. The pilot has shown that additional work is needed to set and refine ROC's animal welfare standards. We believe that ROC could use support immediately to develop comprehensive animal welfare standards that ensure highest welfare outcomes.

It is critical that ROC sets and maintains high welfare standards at this stage of its development. We believe ROC is positioned to become the gold standard for the emerging regenerative market, and that companies and the media use to define the term "regenerative." If ROC adopts standards that prohibit certain common husbandry practices, such calf hutches in the dairy industry or using fast-growing chickens, they will make it less likely that those practices will be considered acceptable within "regenerative" agriculture.

However, many producers—including leading self-identified regenerative farmers—use some of these practices, so there is some reluctance to set a high bar for welfare.

From our perspective, the best case outcome would be for ROC to become the gold standard even if it means prohibiting husbandry practices that are common among leading regenerative producers. It's possible that with additional support ROC could help ease producers' transition away from certain cruel husbandry practices.

For example, if the use of calf hutches is a financial necessity for farmers seeking ROC, ROC could set up a grant fund to help producers offset the costs associated with transitioning to group calf housing. Support for ROC could also be used to help more farmers become certified, especially animal farmers. Though several were interested, there were few animal farmers in the ROC pilot.

Finally, ROC has begun developing a concept of regional regenerative "hubs" based on successful farms and ranches throughout the US. These hubs would be used as centers for educating other farmers on ROC practices and would help to market the program. ROC could immediately use support to help establish regional regenerative hubs.

FOOD ANIMAL CONCERNS TRUST GRANT PROGRAM

FACT's fund-a-farmer grant program has a track record of supporting higher welfare farmers and ranchers. Currently FACT receives more than 250 qualified applications per year and grants roughly $100,000 annually to 40-50 farmers. With additional resources FACT could support more farmers and ranchers and expand advertising for the program to reach more potential applicants.

FACT has committed a total of $30,000 to offer small grants to help farmers respond to the COVID-19 pandemic. More and larger grants are needed, and funds could be deployed quickly to farmers who require immediate support to stay afloat.

STRATEGIES FOR ADVANCING HIGHEST WELFARE REGENERATIVE ANIMAL AGRICULTURE

Summary: We have identified several other high value opportunities may be attractive to funders, though some require additional testing, development, or strategic partnerships before they can be implemented fully.

SUPPORT REGENERATIVE BUSINESSES

Funders can support businesses that are working to define regenerative and create a market for regenerative products. Businesses like Cooks Venture and Marksbury are building important infrastructure to raise animals in higher welfare regenerative systems, and their marketing and sales efforts are likely creating future consumer demand for regenerative products. Their welfare practices go much further than basic animal welfare certifications require, but because they are first-movers in this space they are forced to compete with businesses that do far less for animals and the environment.

We see long-term opportunities for funders to explore how these businesses could be incubated and supported.

Organizations like B Corps, the Food System 6 accelerator, and the National Council of Farmer Cooperatives could create resources and pathways for new entrepreneurs who could be motivated to start regenerative businesses. One of the companies in the Food System 6 portfolio is a company called Central Grazing Company, which produces Animal Welfare Approved (AWA) certified regenerative lamb and leather goods. Funders could support groups like Food System 6 in creating incubator pathways for other regenerative companies, along with infrastructure support for these regenerative ventures. Similarly, funders could encourage the National Council of Farmer Cooperatives (HCFC) to develop programs that encourage members (who are farm coops) to adopt regenerative practices. For example, funders could support a new grant program at NCFC that would provide resources for coops interested in having members trained in regenerative practices.

BUILD CONSUMER DEMAND FOR REGENERATIVE PRODUCTS

As we discussed in the section "Consumer Demand Must Grow," as far as we're aware, no organization has executed a large scale marketing effort to attract new consumers to higher welfare and regeneratively produced animal products. Existing programs that engage the public are not well-resourced and do not reach a wide audience. Because marketing campaigns are seen as expensive and risky, most organizations are unwilling to put much energy into them.

Innovative organizations like the Ocean Agency have demonstrated that there are ways to engage the public to build interest in and support for public resources.

We think it's possible that a sustained and integrated marketing campaign, including advertising, an earned media strategy, social media, shopping resources, coupons, and more could increase consumer demand for regenerative products.

These campaigns could focus on the health benefits of regeneratively produced food or be tied to public health issues, including the COVID-19 pandemic, in ways that encourage consumers to seek deeper connections with the farmers who produce their food.

SUPPORTING GRASSROOTS ORGANIZING

The network of grassroots organizations that support agricultural communities, train farmers, and provide resources to help communities stop further development of CAFOs will be a huge asset for advocates working to shift farmers from confinement agriculture to high welfare regenerative farming.

Supporting grassroots organizations like National Family Farm Coalition, Family Farm Defenders, Iowa Citizens for Community Improvement, Missouri Rural Crisis Center, Land Stewardship Project, and larger national groups like Farmers Union and Farm Aid, etc., will serve both short- and long-term goals that relate to fighting—and building regenerative alternatives to—industrial agriculture. Currently these groups support, serve, and represent agricultural communities and independent farmers. They are on the front lines directing resources, training farmers, building local markets for regional farm products, supporting community leaders, liaising with and lobbying local governments, and much more. Many of these groups have spent years building political power.

A thriving national coalition of grassroots agricultural and rural community organizations will be vital for efforts to pass progressive agricultural policies that reorient our food system toward regenerative agriculture.

ENGAGE WITH THE ANIMAL PROTECTION MOVEMENT

Large institutional buyers—including quick service restaurants and foodservice companies that are frequent targets of campaigns from the FAPM—could help grow the market for regenerative products. Currently, corporate campaigns run by the FAPM only push corporations to incrementally improve animal welfare standards. Without a shift in strategy it will be decades before animal protection groups put pressure on corporations to ask them to source regenerative products.

Influencing animal groups to include regenerative products into corporate asks could jumpstart the regenerative market and provide economic incentives for producers to adopt regenerative standards.

For example, the current Better Chicken Commitment could include a requirement that 5 percent of a corporation's chicken supply chain come from regeneratively produced poultry by 2030 (in addition to GAP Step 1 by 2028). Corporate campaigns that include this higher welfare commitment could target a subset of restaurants and food companies, focusing mostly on the progressive consumer sensitive brands, like Chipotle, Pret a Manger, Bon Appetit Management Company, etc. These companies already see themselves as leaders in this space, and in some cases support higher welfare products—Chipotle already purchases Niman Ranch pork and grass-fed beef, and Shake Shack piloted a grass-fed burger on its West Coast menus.

Similarly, regenerative agriculture could be included in institutional food policy advocacy. Programs like the Real Food Challenge, Good Food Purchasing Policy, and others could incentivize schools, universities, and cities to purchase products with ROC certification. Information about regenerative agriculture could also be included in public education programs focused on farmed animal welfare.

Endnotes

01 For more information about the indigenous origins of regenerative agriculture, see "The Indigenous Origins of Regenerative Agriculture" published by National Farms Union here.

02 For more information about funding strategies in the FAPM, see the report "The Farmed Animal Protection Movement: Common strategies for improving and protecting the lives of farmed animals" published by Farm Forward.

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06 Savory Institute, "Holistic Management Science Library." Accessible here.

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Endnotes

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14 For more details about funding in the farmed animal protection movement, see Farm Forward's report, "The Farmed Animal Protection Movement: Common strategies for improving and protecting the lives of farmed animals."

Authors

Farm Forward was founded in 2007 as the nation's first nonprofit devoted exclusively to end factory farming and our work improves the lives of 400,000,000 farmed animals annually. More information about Farm Forward's work and our other publications can be found at www.farmforward.com.

This report was written and researched by:

Andrew deCoriolis The Executive Director of Farm Forward, Andrew's background is in sustainability, grassroots organizing, and corporate leadership in both the public and private sectors. Prior to joining Farm Forward, Andrew was part of the executive leadership team at Lucid Design Group.

Ben Goldsmith A Co-Founder of Farm Forward, Ben's leadership included a range of consultations for the largest animal protection groups in the country—the American Society for Prevention of Cruelty to Animals, Global Animal Partnership, the Humane Society of the United States, and others—that have ultimately improved the lives of hundreds of millions of farmed animals.

Jennifer Channin The Development Director of Farm Forward and Director of Giving for the Better Food Foundation, Jennifer has been a nonprofit consultant, fundraiser, and program manager for more than a dozen advocacy and social justice organizations. She holds a M.Div. from Harvard Divinity School.

John Millspaugh The Director of Educational Campaigns at Farm Forward and Policy & Engagement Manager at the San Diego Hunger Coalition, John's award-winning justice work has focused on farmed animal protection, modern slavery, LGBTQ rights, and climate justice. John holds a M.Div. from Harvard Divinity School and a M.P.A. from Harvard's Kennedy School.

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