



FIBERSHED
2020 Annual Report



Illustration by Vyana Ma

Letter from the Executive Director

THIS YEAR cast a bright light on the impacts of the financial architecture that textile and apparel brands have constructed for themselves within the last three decades of neo-liberal trade and economic policy. Due to the closure of retail outlets worldwide spurred by the COVID-19 pandemic, there remains approximately \$20 billion worth of garments sitting in factories. The world's largest companies placed pre-pandemic orders and are now simply not paying for them. Unfortunately, the situation is not surprising, as this economic system was designed to force financial risk to those at the base of the supply chain. The trend of externalizing costs onto human communities and the earth's ecosystems is evident in our country's own recent textile manufacturing history. As the United States was formulating the Environmental Protection Agency, the Clean Water Act, and Clean Air Act in the 1960s and 70s, jobs were already being moved overseas. From 1973 to 1996 alone, the United States lost 39% of its textile manufacturing jobs¹, yet we remain the second-largest globally ranked consumer of clothing.²

The centralization of the \$2.5 trillion global textile industry has hit a zenith; 20 international textile brands control 97% of the industry profits. This concentration of power and wealth is rooted in inequitable business architecture. A recently published report by the Workers Rights Consortium drew from interviews with 396 garment workers across 158 factories in nine countries: 77% of those interviewed reported that they or a member of their household had gone hungry since the beginning of the pandemic, 88% reported that the lowering of their income had forced a reduction on the amount of food they consumed each day, and 80% of the workforce expects that they will need to

further reduce the amount of food they eat.³ In contrast to this growing poverty, McKinsey & Co. reported in October that the largest textile brands increased their market value by 11% during the pandemic.

If nothing changes in our behavior and the political landscape, fast fashion is set to raise its market value by 20% by 2029.⁴

When Fibershed initiated a project in 2015 to elevate the role of Climate Beneficial™ agriculture within a prominent textile company's supply chain, we became aware of the functional aspects of the 'purchase order' process. This mechanism illuminated to us the role that the larger name brand companies play within the creation of our clothing. Textile brands do not own, nor are they financially invested in, the mills that make the goods they sell. Instead, they issue purchase orders to the top of the supply chain (usually the cut & sew facility), who then place purchase orders to knitting and weaving mills, who then place purchase orders with the spinner, who then place orders with distributors of raw fiber. Within this purchase order issuance process, finances are not typically exchanged until a finished garment is ready to ship. The farmers and the ranchers are the last to be paid. Fiber is only understood through the number on a bale within a classing system that gives no recognition for the nuances of land stewardship, soil carbon, drought, fire, crop failure, or biodiversity protection. A ranching or farming family can go years without being paid for their wool clip or cotton harvest—forcing a series of decisions that make it nearly impossible to incentivize enhancements to ecosystem function on open range and cropland systems. It is this same purchase order system that has generated widespread issues of economic destitution for the world's garment workers. This lopsided

power dynamic within production and distribution systems favors the name brand and not the names of those within the workforce that operate the mills and the farms.

Fibershed has responded to these issues through directly tying ecosystem function to the price of raw fiber commodities, and through pushing for direct payments to ranchers and farmers within the same year the crop is harvested. Since we began our work, we've enrolled 200,000 pounds of wool that have directly incentivized over 160 Carbon Farming practices on over 13,000 acres of land. The Climate Beneficial Fiber Verification Program work includes holding and continually fostering deeper relationships with land stewards that operate on over 170,000 acres of land. The scale of these working lands is evidence of the opportunity we have to grow the ecological and community economic benefits of this work. Simultaneous to the ongoing expansion of land-based impact, we've worked to refine new on-farm climate impact measurement and modeling tools, and this has brought us into collaborations with partner biologists, Colorado State University, Resource Conservation Districts, the Carbon Cycle Institute, Regen Network, University of California Cooperative Extension Service, The Center for Regenerative Agriculture and Resilient Systems (at CSU, Chico), and the National Center for Appropriate Technology. The work to build climate benefitting, regional food and fiber systems is held up by a community of scientific and agricultural acumen.

Even with all of that coordination and collaboration under our belt, this year, due to a dissolving textile economy, we saw little to no payments offered to our farms and ranches. This scenario drove us to search for methods to refine economic solutions for land stewards further. Through a new partnership

with a longstanding collaborator, we co-developed a Climate Beneficial Fiber Pool that has provided immediate economic relief to several ranching families that operate across 84,000 acres of land. The #NoRegrets initiative provided an innovative financial instrument known as a revenue-based loan that has further enhanced our community's ability to control the pricing of raw material as well as enhanced our ability to add value to raw wool in the form of washing and combing. Each value-addition step that we can do ourselves provides increased value to our rural communities.

We continue our work to build an economically and environmentally just textile model from the ground up. And this work has shown us over the last decade that we cannot fully succeed until we restructure, and in some cases rebuild, manufacturing systems.

We've understood this reality since 2013, when we saw that we'd need to build new regional manufacturing systems to simply make use of all the wasted natural fibers and hides that the global commodity markets were leaving behind. Further back in shaping this paradigm, experiences in my late teens and twenties as a sweatshop-free campus organizer and co-founder of an Art and Revolution chapter at my University had sent me to the streets in DC and elsewhere to protest against the Free Trade Area of the Americas. I'll never forget the North American Free Trade Agreement being signed on television to a living room full of blue collar family members loudly booing. I've watched some of those same family members succumb to politically driven dog whistles that are now so much more audible to the former working class than at any point in my lifetime. I've observed (since my teens) the free trade rhetoric; I've watched the environmental and economic injustices proliferate from these agreements;


and I've experienced the challenge to regulate corruption and greed in the textile industry, as the players are consistently leaping to the next unregulated location. Human rights lawyers and labor organizers have an incredible amount of continuing work. In support of uplifting labor and doing what we can to help create a more level playing field, this year, Fibershed held panel discussions and teach-in style meet-ups led by the Los Angeles-based Garment Worker Center. Garment workers in LA include a community of over 65,000 individuals who are working to pass state-level legislation to end the piece rate payment system, which relegates sewers to earning as little as \$2.50 to \$5.00 an hour within California state borders.

Taking inspiration from work in North Carolina (a region of the U.S. textile-manufacturing sector ravaged by NAFTA), Fibershed has been researching the structure and operational capacity of the Carolina Textile District, a for-profit and non-profit collaboration that supports democratically operated textile manufacturing businesses coordinated through a cooperative structure. The Carolina Textile District provides services to a range of designers, artisans, and makers to help them manufacture textile goods. Fibershed's Regional Fiber Manufacturing Initiative (RFMI) team has been granted extensive consultation time with the Democracy at Work Institute legal group (the lawyers who developed the structure for the Carolina Textile District), which will continue in the coming year. In 2020, our RFMI team provided engineering consultations, financial modeling, and entrepreneurial incubation to a diverse community of emerging manufacturers in the Western region. In the coming year, we will expand our coordinating efforts as we work to understand the

legal architecture needed to develop a cooperatively owned Western Textile District. Our goal remains unwavering—and that is to develop soil-to-skin systems that heal the soil, contribute to the reversal of climate destabilization, and revere everyone involved in the process in a manner that sustains lasting prosperity.

This has been a year that felt like it contained lifetimes of lessons, trials, and opportunities. A key opportunity of 2020 has been to see more clearly, to allow historic and current injustices to be internalized, and grieved. And, to use our creative capacities to envision and implement systemic changes. Thank you all for the grace you've shown us as we grow, learn, and refine our work and approach. We have so much good work ahead and are blessed and honored to be able to do it amid such rich partnerships and collaboration. I hope you enjoy this report and feel heartened by the work that you've supported.

Thank you,
Rebecca Burgess

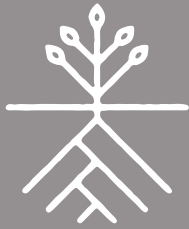


¹ <https://www.bls.gov/mlr/1997/08/art3full.pdf>

² <https://www.commonobjective.co/article/volume-and-consumption-how-much-does-the-world-buy>

³ <https://www.workersrights.org/wp-content/uploads/2020/11/Hunger-in-the-Apparel-Supply-Chain.pdf>

⁴ <https://www.statista.com/statistics/1008241/fast-fashion-market-value-forecast-worldwide/>

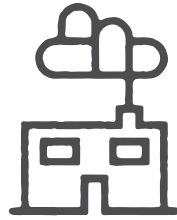


Regional Textile Economies Program

FIBERSHED'S REGIONAL TEXTILE ECONOMIES PROGRAM works to build regional supply chains, connecting growers, manufacturers, and wearers. In this program, we focus on three strategies: building and promoting a strong, connected producer network, assessing and developing regional manufacturing capacity, and supporting the movement of materials along the supply chain from producers through fiber processors, designers, and brands to wearers and textile users.

COMPLETED:

- Completed ecosystem mapping research of the Western US, including interviews with 30+ stakeholders, and published results in 2 articles
- Developed and prioritized a database of 35+ investable fiber opportunities in the Western US
- Supported 3 promising textile entrepreneurs who are offering critical services for the farming and ranching community
- Raised \$1M for strategic investments in regional manufacturing machinery and pooling of Climate Beneficial™ materials
- Established a network of 40 mission-aligned investors interested in allocating resources to needed regional fiber infrastructure
- Successfully completed the design and build of a Hemp Sleeper Cabin; an ecological emergency shelter designed for communities facing climate and economic disruption with an open source design that can be grown and produced in a decentralized manner
- Received first prize at the US Hemp Build Summit Innovation Slam for the Emergency Shelter hemp sleeper cabin (view the Summit Presentation here: bit.ly/HempInnovationChallenge)



Manufacturing Assessment and Development

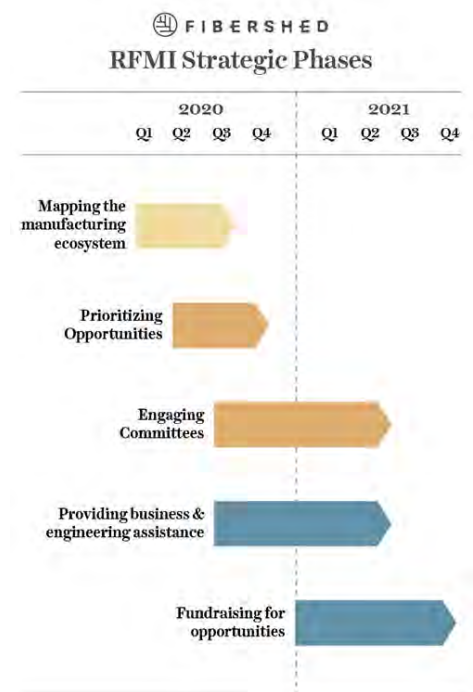
The Regional Fiber Manufacturing Initiative

BY NICHOLAS WENNER
AND ADRIAN RODRIGUES

WE LAUNCHED Fibershed's Regional Fiber Manufacturing Initiative (RFMI) this year with the goal of developing and implementing a manufacturing strategy that will regionalize the production of textiles while also fostering climate solutions and community prosperity. Disruptions to the global manufacturing system this year due to the COVID-19 pandemic have highlighted our existing global systems' brittleness and the practical and economic need for resilient regional infrastructure. Furthermore, more and more people are becoming aware of the current globalized textile industry's significant environmental and social issues. The interest in transitioning to a circular and regional textile industry has never been higher.

According to McKinsey's 2020 report "Fashion on Climate," the global fashion industry produced 2.1 billion metric tons of GHG emissions in

2018, representing 4% of total global emissions. To align with a 1.5-degree climate change pathway over the next ten years, the industry needs to halve those emissions. The report emphasizes that "the immediate focus of accelerated abatement should be upstream operations, where around 60% of emissions savings are possible, in particular from increased use of renewable energy." Indeed, decarbonized materials processing and garment production account for 47% of total possible emissions savings, representing the single largest lever identified in the report. We aim to use the climate levers available to us by catalyzing regional textile manufacturing systems powered by renewable energy and supplied by Climate Beneficial fibers.

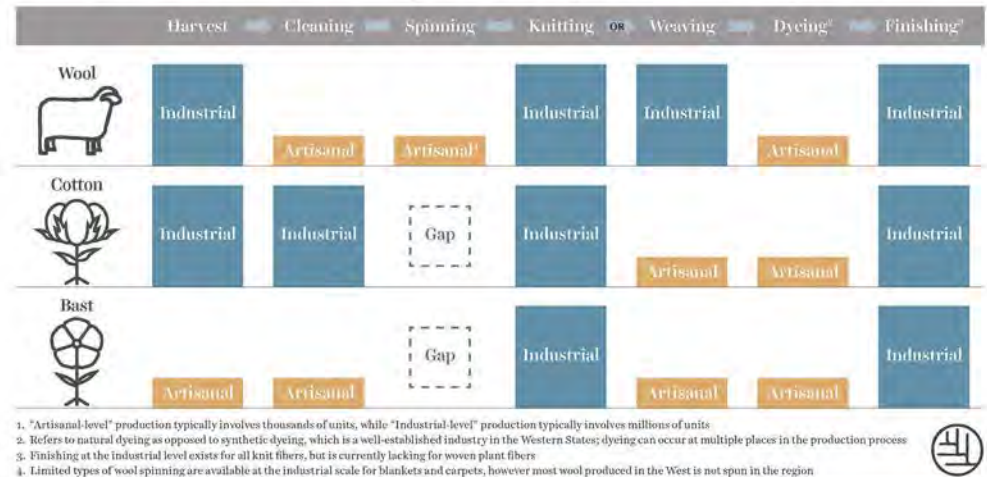


Since its launch in early 2020, the RFMI has:

- Mapped the ecosystem of fiber and textile manufacturing in the Western US and published our findings that identify where capacity exists and where it does not (bit.ly/RFMIEcosystemMap)
- Explored and highlighted case studies of how regional cooperative networks can reshape the textile industry (bit.ly/RFMICoops)
- Prioritized investable opportunities based on business viability, entrepreneur readiness, environmental impact, and manufacturing impact
- Supported three promising textile entrepreneurs who are offering critical services for the farming and ranching community
- Enrolled 16 committee members across six committees and initiated meetings and working groups
- Established a network of mission-aligned investors interested in allocating resources to needed regional fiber infrastructure
- Estimated the carbon footprint differential for key components in a circular regional fiber production system compared to the current global supply chain
- Published and shared our work via the RFMI website (bit.ly/FibershedRFMI)
- Documented our work in a slide deck (available upon request) that gives an overview of the RFMI, its committees, the results of our ecosystem mapping, and the key macro trends in the fiber industry
- Developed a presentation for local textile brands that provided key visual data and metrics and inspired five new brands to join a pre-competitive California Cotton and Climate Coalition

Current Capabilities of Western U.S. Fiber Manufacturing

The Western U.S. fiber manufacturing ecosystem suffers from gaps in production capabilities, as well as bottlenecks where only artisanal-level production is currently available.¹



The high-level results of our ecosystem mapping work. Hide tanning (including sheep, goat, cow, and deer) exists at an industrial scale. However, natural tanning only exists at the artisanal level.

Throughout 2020, the RFMI provided business and engineering technical assistance to three textile businesses—Imperial Yarn, Huston Textile Company, and Fibrevolution.

Our work with Imperial Yarn focused on developing a Climate Beneficial Fiber Pool financed through an impact-oriented revenue-based loan. A wool pool has a multitude of interwoven benefits: a revenue stream for climate-smart ranchers impacted by COVID-19, an aggregated supply of semi-processed Climate Beneficial Wool (CBW) that enables brands to have shorter lead times for materials and lowers a key barrier to CBW adoption, and access for Imperial Yarn to a pool of working capital financed through a patient revenue-based loan financing vehicle. As the Climate Beneficial Fiber Pool operationalizes, the RFMI will move to a more informal advisor role.

Our work with the Huston Textile Company (HTC) was focused on providing business and engineering technical assistance to help contextualize and guide the next chapter of HTC's evolution. We developed a strategy to launch a staggered expansion into knitting

and then weaving infrastructure. Key dimensions included understanding optimal equipment and scales of production and developing the economic proforma of the business. During this collaboration, HTC entered into a joint venture with the Stoll family to help catalyze this vision. As the year ends, HTC and the Stoll family will move from a focus on strategy to a focus on implementation. As the strategic needs of HTC lessen during this implementation phase, the RFMI will serve a more informal advisor role with an openness to collaborate more deeply in the future once HTC manifests the next steps of its vision.

This year we initiated support for bast fiber processor Fibrevolution by helping them create a forward-looking economic model for their envisioned flax scutching and hackling mill in the Willamette Valley of Oregon. We also advised on their business plan, made introductions to international flax industry leaders, and began work on business marketing materials. The RFMI will continue to work with Fibrevolution next year, supporting them to enroll the needed resources to implement this vision.

In the latter half of this year, we enrolled 12 individual industry experts in our committees and initiated work with them. The Material Production Committee is envisioning fiber pools and marketplaces for Climate Beneficial fibers. The Manufacturing Committee is making key connections to European manufacturing experts in the linen and wool industries. The Consumer Connections Committee is collaborating with a cohort of brands to coordinate the uptake of regionally produced fibers. The Business Services Committee has been supporting the RFMI and its stakeholders' needs on an ad hoc basis. The Equity and Justice Committee is systematically integrating equity and justice into the core of the RFMI's work.

We are also partnering with the Democracy at Work Institute, which received a USDA Rural Cooperative Development Grant to help us incorporate cooperative principles into our vision, including envisioning a cooperative trade organization (e.g. The Western Textile District) to serve as a hub in the emerging regenerative textile industry. This organization is inspired by the Carolina Textile District, which we described in one of our blog articles published this year.

We are entering 2021 with a pipeline of investable textile manufacturing opportunities to connect with our networks of mission-aligned patient investors. As described, we have already initiated work with Fibrevolution. We are discussing similar work with a wool processor in Northern California to expand their capabilities in carding, felting, and potentially scouring.

"I worked with FJ, Adrian, and Rebecca to not only form the Climate Beneficial Fiber Pool but to secure enough funds to purchase the wool from the growers, have it made into top and have it available for sale not only to us, Imperial Yarn, but also to other brands. The plan was genius to keep the wool segregated so we could market it to several brands in top form, or have Imperial Yarn have yarn made for knitting and weaving or have sweaters, fabric, or whatever they requested. FJ and Adrian worked hard to put together my "plan" and did a fantastic job. We were able to close on a loan in late October 2020 to secure the funds needed to push our initiative forward. Would I work with FJ and Adrian, and the RFMI again? You bet I would. I feel like I have two new collaborative allies in my corner to help get what our industry needs done to be successful."

– STACIE CHAVEZ, IMPERIAL YARN



Imperial Yarn

Supporting ranching communities and catalyzing a regenerative fiber supply ecosystem through a strategic investment in a Climate Beneficial Wool Pool (CBWP)



"The RFMI team supported HTC's growth towards responsible scaling of production in regenerative and domestic textiles with key technical assistance; through business planning and financial modeling. Their acumen and backgrounds in traditional finance afforded our business high-level, trusted feedback we needed to support catalyzing investment in our infrastructure, operations and inventory. From our work together, we value the

various paths forward with experts like the RFMI who truly care about the evolving domestic textile community, our business goals, and the direct steps to strategize where our business thrives in it all."

– RYAN HUSTON, HUSTON TEXTILE CO.

We have begun discussions with a Black- and woman-owned cotton clothing company about a vertically-integrated clothing business. We have also begun conversations regarding an organic tannery and a natural dyeing and finishing facility. We aim to support at least three of these businesses in 2021.

In 2021, the RFMI will focus on engaging prioritized opportunities with engineering and business technical assistance, working with its partners at Provenance Capital Group to raise capital and resources for prioritized opportunities, and developing a long-term business model and organizational structure for the RFMI. We are also excited to be exploring collaborations with Sarah Kelley, who spearheaded the Sustainable Agriculture and Food Systems Funders' (SAFSF) report "The Fibers Roadmap - Integrated Capital Opportunities to Support Revitalization of US Grown Fiber, Textiles, and Leather."



Shannon Welsh and Angela Wartes-Kahl of Fibrevolution (Photo by Micah Fischer)

"The Regional Fiber Manufacturing Initiative supported Fibrevolution by synthesizing the financials from our business plan and developing a dynamic financial model, allowing us to create a strategy, timeline, and identify entry points for capital investments. They also opened their network and identified and initiated key potential partners to help propel our mission forward in developing a bast fiber supply chain in the Western USA."

– SHANNON WELSH, FIBREVOLUTION



Lifting Up Our Manufacturing System: Developing Our Textile Hub in Real Time

The work to design a functioning textile hub requires lifting up complementary pieces of the ecosystem simultaneously and linking them together in ways that support collaboration. In the case of Mendocino Wool and Fiber Inc. (shown in these photos by Paige Green) and Huston Textile Co., collaboration has been limited in the past due to a mismatch between the scale and type of yarns produced by the former and those used by the latter. Now, with RFMI-supported investments in efficient fine-gauge spinning machinery on one hand and computerized knitting machinery on the other, the two mills have an opportunity to grow their businesses while working collaboratively to transform local regenerative materials into fully place-based textiles. Machinery for both mills is expected to arrive or be ordered in the coming months.

Hemp Sleeper Cabin Innovation Challenge: Phase I

BY REBECCA BURGESS
AND AMY FARAH WEISS

In March of 2020 Fibershed and the St. Francis Homelessness Challenge (SFHC) initiated a collaboration to develop an eco-insulated, fire & mold resistant, California code compliant, mobile, and scaleable sleeper cabin that can be utilized for emergency shelter, resident stewardship lodging, and regenerative land activation of underutilized sites (including off and on-grid, urban, farming, rural, wilderness, etc.).

SFHC selected the vendor to design and build the Hemp Sleeper Cabin prototype. The team provided design services, and provided extensive project management to successfully bring the project to completion. The design and build team constructed the Hemp Sleeper Cabin prototype in Ojo Feliz, New Mexico, during the Summer of 2020. The prototype successfully met the following specifications: 70

sq ft or greater in usable floor area; a bed platform and suitable storage and desk space; electrical outlets for solar electricity; compliance with CA State Building Code for Emergency Sleeper Cabins as outlined in State of CA's Information Bulletin 2018-05; and designed for easy maintenance, regular use, and mobility.

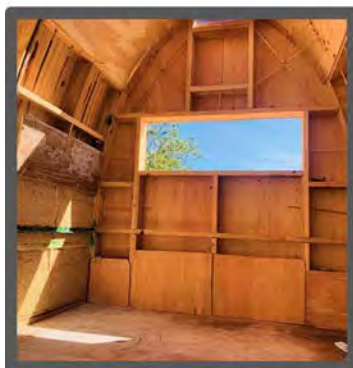
The cabin was transported 75 miles to Arroyo Seco, NM, where SFHC held an open-house celebration for the Hemp Sleeper Cabin at Snow Mansion, their partner organization, on October 2, 2020. The celebration also served as a COVID-19 safe regional networking event that brought 15 farmers, green builders, permaculture experts, hemp experts, artists, and locals to discuss how their work connects with hemp as a building material and the need for additional lodging in their communities and farms. The cabin was then transported to San Luis, Colorado, to Arnie Valdez of Rezolana Farm, a Fibershed partner organization, for temporary hosting and research.

SFHC entered the Hemp Sleeper Cabin project into the US Hemp Build Summit Innovation Slam and won first prize.

"What an amazing, inspiring project! I feel inspired by what you are doing to alleviate homelessness!"

– US HEMP BUILDING SUMMIT

The award expanded our network for hemp sourcing materials and potential sponsors. As of mid-November, SFHC has entered into agreements with three different regional farmers/builders (Rezolana Farm in San Luis, CO, Duck Berry Farm in Paonia, CO, and Loma Linda Farms in Mora, New Mexico) to participate in Phase II of the Hemp Sleeper Cabin prototyping. The partners have committed to a minimum of \$20,000 in funding, six months of project management support, sourcing hemp and eco-building materials, supporting one or more hemp workshops in Colorado and/or New Mexico. The partners are committed to building an open-source network and online documentation and mapping system to support regional, regenerative agriculture, a manufacturing economy and culture via hemp sleeper cabins.



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COMPLETED:

- Added 6 new farmers and 7 new artisans to the Northern California Producer Program
- Hosted farmers and artisans with an in-person networking meeting and one virtual meet-up focused on ruminant health
- Published 9 professionally photographed stories on local farmers, mills, and artisans from our Fibershed producer program
- Drafted, printed, and distributed two in-print Fibershed producer newsletters to our network

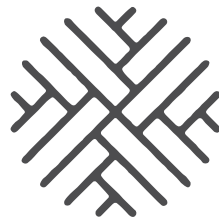


“Congratulations on another visually stunning and super packed great newsletter!! Thank you for letting me be part of it!”

— AMY SKEZAS

“Loved the newsletter, great mix of articles and art!”

— MARIE HOFF



Producer Network

- Refined Fibershed producer data and protocols in Salesforce to accurately track and streamline membership and Climate Beneficial program practices
- Developed templates for a “Grazier’s Toolbox,” including three financial analysis tools, one legal template for grazing contract development, and two human resources tools.
- Provided coaching on the use of the graziers toolbox for 4 Fibershed producer members, including PT ranch, Wild Oat Hollow, Kaos Sheep Outfit, BCB Shepherdess
- Provided individual consultations on yarn development to 6 farm and ranch member producers
- Created a 10-page document of COVID-19 resources (bit.ly/ProducerCOVID19) specifically relevant to the Fibershed community, which was also cross-listed on two agriculture-based websites including the National Young Farmers Coalition
- Provided 25 hours in COVID-19 business consultations for four farm and artisan businesses facing economic hardship

Producer Program Technical Assistance

BY OLIVIA TINCANI

AS A COMPLEMENT to our Business Curriculum of webinars and accompanying business tools, we offer individualized technical assistance on an ongoing basis to provide personalized business advising for a set of interested producers. In addition to providing an immediate response to COVID-19 business challenges, and education on how to use financial tools for contract grazers, we also provided year-long coaching to three small businesses that are working to re-establish the soil-to-skin system in our community.

GDS Cloth Goods: personnel and labor issues, communication strategy and marketing planning, inventory management, strategic planning, export market advising, financial planning, analysis, and accounting practices. The relationship also resulted in the direct hiring of Bernoulli Finance for bookkeeping and ongoing financial planning.



*Geana Sieburger of GDS Cloth Goods
(Photo by Paige Green)*



Wild Oat Hollow: strategic planning and visioning, accounting practices and QuickBooks organization, inventory management, product breakeven and margin analysis, sales strategy, grant writing assistance, community supported grazing project collaboration.

Chico Flax: accounting practices and QuickBooks organization, financial statements review (income and balance sheet), cash flow and budgeting, cost of production and cost of goods calculations, production breakeven and margin analysis, and marketing strategy.

Finally, we engaged with the Mendocino Carbon Farm Cohort in an introductory business advising session to determine areas of interest for future group business learning sessions we hope to launch as quarterly installments of the Cohort activities in 2021.



*Top, Sarah Keiser of Wild Oat Hollow, above, Sandy Fisher of Chico Flax
(Photos by Paige Green)*

COVID-19 Producer Response: Resources, Tactics and Advising

BY OLIVIA TINCANI

TO SUPPORT the Fibershed producer community during the COVID-19 crisis, we compiled an extensive online list of tactics and resources to help entrepreneurs care for self and business, updated daily with new resources until the end of May. Including subjective and adaptive sales and marketing tactics specific to the industry, as well as numerous links for financial resources and opportunities, and state-specific guidelines, the list proved to be an important resource for

“2020 has been my most challenging year in business by far, and not just because of the pandemic. When I was having serious thoughts about shutting down the business earlier this year, Olivia was the matter-of-fact voice I needed to hear. She helped me see that what I was experiencing, though all seriously inconvenient and all at once, was all part of business. She did this with kindness in a way that was restorative and constructive—just what I needed at a moment of feeling so depleted. I’m so grateful for Olivia’s advising and the level of care she’s shown me and my business.”

— GEANA SIEBURGER, GDS CLOTH GOODS

our producer community in navigating a requisite professional flexibility that this moment commands.

This list was accompanied by brief one-on-one technical support, 1-3 hours of individualized coaching for businesses

grappling with the challenges (and in some cases unforeseen successes) brought about by this unprecedented situation. Shorter engagements covered advising in multiple business areas but were focused on immediate needs and adaptations.

Dedicated Technical Assistance for Kaos Sheep Outfit

BY OLIVIA TINCANI

BUILDING ON the prior year’s work, engagement with Kaos Sheep Outfit as a vanguard in the contract grazing world focused on continued refinement of internal HR systems and critical tools to determine job profitability and margin. Despite their epic and heroic confrontation of hardships not limited to the global pandemic and historic wildfires that disrupted their work, their needs for internal business systems and protocols continue to compromise their grand potential.

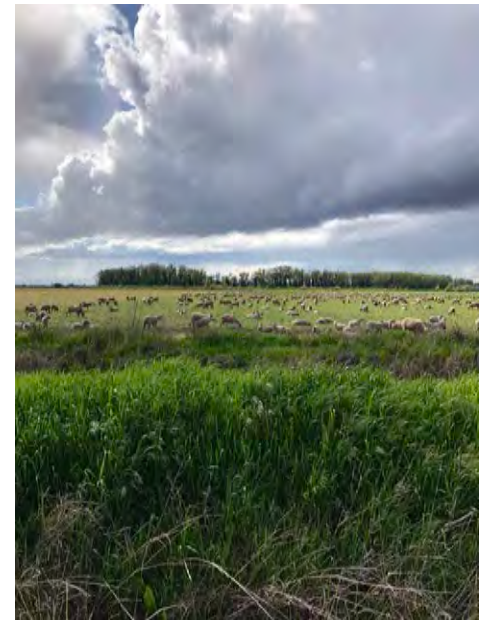
We introduced multiple templates (three financial analysis tools, two HR tools, and one legal tool) that, having been trialed with Kaos, became part of the Grazier Toolbox. The Grazier Toolbox is building a compendium of business resources customized specifically for small to medium-sized contract grazing with mixed enterprise operations, H2A or non-foreign labor, breeding programs, and

or meat sales. Their use and feedback of these materials are critical to their refinement for a wider audience.

With Kaos positioned as a leader in the west for its operational and industry savvy, these critical pieces of business backend strive to support them in their continued aim of economic and personal viability and growth.

Work included the following completed specific projects for Kaos:

- Introduced the contract breakeven calculator for evaluating margin on each job and job type
- Finalized grazing contract for further use as a basis for Grazier Toolbox agreement template developed with CA Farmlink
- Introduced herd production calculator for tracking herd growth and meat production
- Provided relevant COVID-19 relief resources and opportunities
- Reviewed budget and accounting operations systems in anticipation of a new bookkeeper coming on mid-year.



Kaos Sheep grazing at Park Farming Organics (Photo by Jaime Irwin)

Grazing School of the West: The Grazier's Toolbox

BY OLIVIA TINCANI

UNDERNEATH the Grazing School of the West project's umbrella, we are amassing a body of replicable models and business instruments fundamental to contract grazing operations and targeted grazing sector expansion. Our goal is to support the businesses (existent and emerging) and entrepreneurs with practical tools directly relevant to operations that carefully manage small ruminant grazing as an effective tool for fuel load reduction, ecological health, and perennial cropland management (ICLS). This "toolbox" provides resources for grazing businesses in the region as they enter the field or refine their scope. In addition to the tools themselves, we created a short instructional video for a few of them to guide folks through implementation.

The following resources have been fully developed and delivered, with a few more to be delivered by early 2021:

Contract Job Breakeven Calculator: both a job-specific and overall grazing enterprise breakeven analysis tool in Excel for graziers to estimate profitable per acre - or - per head/per day jobs. It looks at herding costs and all other direct costs for each specific contract, allowing a grazer to adequately price a job with the desired margin. It also offers a space to experiment with scaled pricing across multiple job types (BLM, regional fire reduction, private landowner, company/corporate vineyard and perennial cropland, etc.) and establishes per acre profitability for projects from diverse revenue channels in a holistic look across all job types.

Contract Grazing Agreement: in coordination with CA FarmLink and environmental attorney Chris Danch, we have developed a thorough template for legally binding contract grazing agreements to support graziers

in mitigating risk and liability, determining responsibility in a formal agreement with clients, and securing mutually understood expectations for contracts. This template is delivered via technical assistance with CA FarmLink, connecting each grazer with an individual advisor for contract completion at no cost to grazer beyond annual fees to both organizations (\$20/annually for CA FarmLink registration). Fibershed tracks each grazer's relationship with CA FarmLink to ensure a positive outcome. As a result of the relationship, CA FarmLink has inquired about multiple similar projects with regenerative grazing at their focus, forging a good connection between the two organizations.

Lamb Meat Production & Sheep Herd Growth Calculator: an Excel tool to easily calculate lamb production and herd growth across multiple years. Easier than herd management software and a bit more intuitive than paper-based checklists or herd planning sheets (as provided by Savory Institute, HMI, etc.), this allows each grazer to set their benchmarks for ewes culled, kept, bred; predator loss, conception, birth and weaning rates; male to female ratio and resultant lambs for meat sale; and breeding stock for continued production.

Grazing Business Plan Templates: These are universal templates for writing a thorough business plan for any operation, slightly tweaked to apply to contract grazing/fiber/meat businesses. These templates break out the business plan into separate sections to better focus on how one researches and writes a plan and are designed to be living documents that producers can adjust as needed throughout the business trajectory. A necessary part of receiving traditional loans and a fundamental part of due diligence for any start-up, business plan writing becomes less painful with these templates that include instructions on each narrative piece. They can also apply to other models and business types.

"Experiencing Fibershed's reach and impact grow year after year, I am thrilled to be a part of carrying out its mission through the work I am collectively dedicated to in 'regional fiber systems that build soil & protect the health of our biosphere.'"

— BRITTANY COLE BUSH
GRAZING SCHOOL OF THE WEST

3-Year Cash Flow Budget Template:

This cash flow tool allows a business to forecast the ins and outs of income and expenses, including one-time investments and capital expenses, based on a yearly calendar and allowing the entrepreneur to avoid cash crunches and low points in the bank account balances. Unlike the financial statements exported from your accounting software and able to be used entirely independently, it is designed to function in part as a budget, project three year's worth of activities, slotting revenue and expenses into the actual months they occur to predict actual cash flow simultaneously. Categories are pre-programmed with accounts relevant to grazing businesses. Still, they can customize by individual businesses and act as a model Chart of Accounts for grazing business' accounting software.

Lamb/Goat Yield & Margin

Calculator: Relevant to any meat operation producing goat and lambs for sale, this is a practical "one-stop-shop" tool to use for harvest tracking, processing/yield record-keeping, as well as pricing and margin analysis. It can be used to weigh options for profitable cuts based on actual harvest numbers, carcass yields, and by testing out various prices and margins across multiple revenue channels. The calculator also accounts for comparing options for full cut-out versus halves or quarters. It affords an in-depth look at calculating yield post-processing, from live weight through cut-out decisions, and how best to keep track of harvest numbers to create ranch benchmarks and standards over time.



New Producers

Row 1: Eleri Design, Sunnyside Farms, The Wolf and Horseshoe • Row 2: Housework, Nasimiya Designs (photo by Paige Green), Kámen Road • Row 3: Gynna Made, Sonya Hammons, Fox Farms • Row 4: Lissy's Zoo, The Royal Bee Yarn Company, Three Bags Full Wool

Collaborating to Refine Local Knitting Yarns

BY GAYLE RAVENSCROFT

AS PART OF the virtual meet-up for the Producer Network, I was delighted to have a number of Fibershed producers send in some of their yarns, fleece clips, and questions about their potential suitability and appeal for hand knitting. I was struck by the wonderful diversity of production and the potential this represents for knitters, from the sturdy workhorse yarns produced by Chico Flax, to the extraordinary felted spun fleeces of Rhoby's Ranch in incredible natural CVM colors, and the handspun Romney yarn from Ace 'n the Hole. Rare on the commercial market, these heritage breeds and unique preparations offer knitters the chance to translate the qualities these yarns possess into their projects in ways that elevate their work—and connect with producers in deeper ways.

Fibershed organized virtual appointments where I could provide feedback to participating producers and suggestions for developing their yarn offerings. It was also a chance to discuss whether yarn production would be a suitable investment for a flock that might not (yet?) represent the kind of fibers that a hand knitter might be attracted to.

A particularly notable and ongoing collaboration happened with Barinaga Ranch, and beautiful new, Climate Beneficial Transitional yarns are in the works as a result—so stay tuned, knitters!

In addition to these individual consultations, I had the chance to create some beautiful knitted items highlighting local yarns, presented in a Fibershed webinar to knitters from our new Learning Center in Point Reyes.

I am looking forward to continuing this project once we can safely do so by hosting regular farm yarn knitting circles at the Learning Center,



Farm yarns at work (Photo by Gayle Ravenscroft)

organizing farm visits, and pop-up yarn tasting opportunities to extend this project much further into the knitting community in 2021.

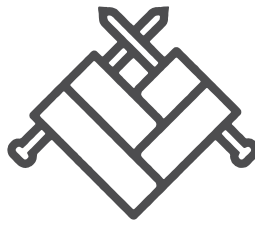
Producer Meet-Up

In February, Producer members met up at the UC Berkeley Botanical Garden; Rebecca Burgess demonstrated native plant dyes as part of the event. (Photos by Paige Green)



COMPLETED:

- Provided a free webinar in animal husbandry and small flock management to all sheep shearing students who enrolled in the school as well as those interested or already involved in caring for their own flocks
- Executed a pre-competitive working agreement with 5 California based brands to develop a roadmap that analyzes soil-to-skin supply chain partners within the U.S.; the goal is to keep our cotton out of export markets while securing a per pound pricing that will cover the costs of soil regeneration.
- Organized and executed a field day with researchers, farmers, and brand partners to conduct in-field soil carbon, water infiltration, and slake testing
- Coordinated with 2 technical textile developers to assess existing textile constructions utilized by each brand to determine a viable pre-competitive and share-able yarn and textile that could work for multiple brand partners
- Held 3 direct instruction virtual classes for brand partners with White Buffalo Land Trust focused upon group exercises to build a relational approach to working with each other (we aim to move the group beyond transactional thinking to a point of understanding how to work at deeper levels of reconciliation with all those who in the soil-to-skin workforce.)
- Initiated a collaborative effort to provide economic relief to the fine wool ranching community in the face of COVID-19 with a new Climate Beneficial Fiber Pool; over 74,000 pounds of wool secured
- Supported 2 new local designers in launching their new zero-waste, 100% local textiles



Supply Chain Support

- On-boarded 3 new textile brands and provided education on the use of American manufacturing systems while providing education on soil health, climate change mitigation, and ranch and farm viability through the development of direct markets

Shearing School

BY TREVOR HOLLENBACK

EARLIER THIS YEAR, Fibershed, The University of California Hopland Research and Extension Center (HREC), and I collaborated to create a unique program. Most shearing programs in the United States and elsewhere focus strictly on shearing. Based on my experience teaching beginning level shearing programs, the overwhelming majority of students who come to us have very little background knowledge in sheep. Knowing that sheep shearing is but a single piece (albeit a highly specialized piece) in a grand puzzle, we wanted to design this program so that students would walk away with more than just that one puzzle piece.

Aptly named, "Sheep Shearing and Basic Care 101" at HREC combines an immersive, week-long, hands-on shearing course with numerous lecture topics focused on the other aspects of husbandry that are unique to sheep. The intention behind this design is to provide students with the opportunity to graduate from the program with a strong understanding of both how to shear a sheep and how to care for a flock (as well as individual sheep) throughout the year.

"I feel more confident giving customers and members of the public information on wool industry."

"Thank you all! A lot of great information today. :)"

"This was a really good general introduction. we're getting our first sheep in two weeks. thank you for providing this and I'm looking forward to more opportunities to learn."

— STUDENT FEEDBACK FROM SHEEP
SHEARING AND BASIC CARE 101

The shearing aspect of the course focuses primarily on:

- How to handle and shear sheep humanely
- How to shear in a way that preserves the marketability and usability of the fiber, resulting in the highest value for the producer and the least amount of wasted fiber
- How to operate a mobile shearing service

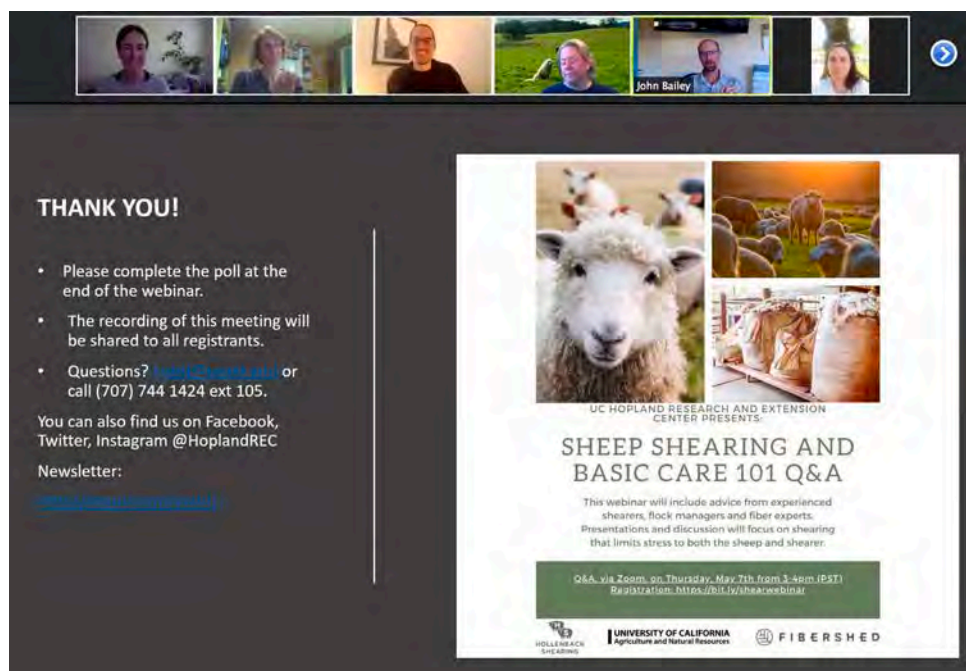
The sheep care aspect of the course focuses primarily on:

- Animal Health
- Breeding
- Common Diseases
- Targeted Grazing
- Infrastructure

Whether students are going to be returning to a life as a shearer or a flock-owner (and sometimes both) after our program, sending them away with a broad foundation of knowledge that extends beyond proficiency in shearing is the key. To get this course off the ground, a curriculum and course handbook needed to be developed. Between the work I put into developing the shearing content, the work HREC put into developing the sheep care content, and the work Fibershed put into compiling

and formatting everything into a handbook, a minimum of 140-man hours went into the creation of this course curriculum and handbook. Handbook can be viewed here: bit.ly/sheepshearinghandbook2020.

Unfortunately, due to COVID-19 concerns, we had to cancel both of the 2020 courses. We had a full enrollment of ten students in each course and fully expected to graduate all twenty from the program. All of the students were given refunds, and we held a free of charge Q&A webinar for them shortly after this decision was made. We are planning to run these same courses in the spring of 2021 and expect an even more competitive enrollment pool, as interest in this course rapidly grows.



California Cotton and Climate Coalition (C4)

BY REBECCA BURGESS

IN RESPONSE to the impacts that COVID-19 has had on international textile supply chains, a group of forward-thinking businesses with headquarters in our region seek to bring their production to our shores. In the process of fielding requests for information regarding the what, where, and how of local fiber and manufacturing resources, Fibershed began to evaluate how we could use this opportunity of inquiry to construct stronger connections between textile brands and production cotton farms through developing and deploying new learning modules. The requests we received in 2020 from the brand community were focused almost exclusively on cotton supply chains. Cotton makes up 30% of the total fiber consumption of wearers globally, wool is 2% of fiber uptake, and fossil carbon derived fibers range between 60-65%, by volume, of our wardrobes.

Working with a non-profit partner, the White Buffalo Land Trust

(headquartered outside Santa Barbara, California), we worked to organize brands with similar needs into a pre-competitive learning group focused on the following set of objectives:

- 1) Develop an understanding of the reality of current cotton production agriculture in the San Joaquin Valley through hands-on experience and direct instruction
- 2) Understand the costs of soil regeneration, including moving from a chemical approach to a biological approach within a site-specific context
- 3) Translating the costs of these land based transitions into a yard of fabric
- 4) Develop a holistic framework for supporting collaboration between brand and farm that strives to move beyond certifications and transactional thinking to deeper levels of reconciliation to allow for long term agreements that yield measurable improvements to repair soil, water, and air.

The work to transition chemical-based production agriculture into a truly biology-enhancing system is not something that textile brands

are typically comfortable with. The culture and practice of sustainable textile businesses has been to source cotton from locations in the world where organic agriculture is already occurring, and certifications are either in place or are easy to obtain. The California Cotton and Climate Coalition acknowledges this history and supports these brands to retain all of their organic suppliers while simultaneously asking them to exist as the gravitational economic force to transform our local conventionally farmed acreage into a farming system that not only works to eliminate synthetic chemistry, but also focuses on the integrity of the soil structure, and the key role it plays in the hydrologic cycle. In the process of building this learning group, we are acknowledging and addressing the multiple risk factors upfront, including yield loss, higher costing, and challenging the seed monopolies.

Our learning group includes California brand partners Christy Dawn, Coyuchi, Outerknown, Co Collection, and MATE. In November, we traveled to Merced County to allow the brand partners the time to meet the land and farmers, who,

along with research partners from the CSU Chico Center for Regenerative Agriculture and Resilient Systems, provided a solid overview of the current state of the soil. We masked up and made the trip from all corners of the state, following current health guidelines for these outdoor, carefully distanced on-farm activities.



Photos at Bowles Farm, clockwise from top: California brands inoculate seed with Dr. Cindy Daley (in foreground); Eileen Mockus, CEO of Coyuchi prepares for a water infiltration test; water infiltration tests with California brands; Soil health demonstration — on left is soil compacted by repeated tillage, on right is soil from an organic no-till site that shows oxygen pockets and results of microbial life; member of the California brand community taking soil carbon baseline samples (Photos by Krystle Wood)

Climate Beneficial™ Wool Pool

BY REBECCA BURGESS

IT WAS A YEAR of significant change in the status of textile and fiber growing businesses due to the pandemic. Halfway through 2020, 5,400 retail stores owned by major brands have permanently closed, and \$40 billion in finished orders from Southeast Asian supply chains were left unpaid by Western based companies. We reported the issues in depth in our mid-year report, and the current update is that approximately half of those unpaid orders remain unpaid. Work by individual activists and labor advocates who launched the #payup campaign offered tremendous visibility on the issue of the broken global supply chains. The labor-focused organizing to force fashion brands to pay for completed orders has done much to mitigate complete disaster. Yet, it is extremely clear that the current economic model, based on wide disparities between the highest paid workers in the west and the lowest paid workers in the global south and other exploited countries, is expanding and deepening poverty status for those who make our clothing.

What the industry's collapse has meant for wool sales for ranchers and farmers working on Climate

Beneficial Agriculture has equated to deepening economic hardship. Wool prices plummeted by over 43% this year, sheep hides (that once commanded a \$10 per hide price) are costing ranchers \$2 per hide to dispose of. Wool sales that would normally begin after the spring shearing season never began.

Fibershed staff at the Regional Fiber Manufacturing Initiative worked with our partners at the Northern California Fibershed Cooperative to design a financial model and build agreements with growers to execute a regional Climate Beneficial Fiber Pool as a way to secure prices for ranchers and purchase their wool directly. Working with Imperial Yarn and in collaboration with Esther Parks of the NoRegrets Initiative, the pool was launched in the autumn of 2020. Emigh Livestock, McCormack Ranch, Kaos Wool, and Bare Ranch are the first ranches and contract grazer businesses that have entered the pool. The investment in the pool covers the costs of wool production

for the ranchers while providing a price premium for their work in carbon farming, as well as covering the costs of washing and combing the wool to prepare it for spinning. Ranchers in this pool are implementing land stewardship practices that (when fully implemented) will remove an estimated 13,220 metric tons of CO₂e per year from the atmosphere. These greenhouse gas numbers have been derived from the ranches' own carbon farm plans and direct measurement and research conducted by the Gaudin Lab. For a sense of scale, this equates to removing 2,900 gas powered vehicles from the road.

While many of the businesses that purchase wool or wool textiles crumbled or shrank in 2020, we were able to keep the energy of creativity alive in our local design community. We saw the launch of two new businesses that are building zero-waste designs from the Community Supported Cloth project that Fibershed launched in 2017. Both Italia Hannaway (Italia A Collection) and Cory Gunter Brown (Earth My Body) released beautiful new pieces this year (see page 19). We were also able to bring on three new brands with very strong followings and newly minted yet intense commitments to rebuilding American manufacturing and healing economic divides—Co collection, Outerknown, and Mara Hoffman. They all came to the table in 2020. All brands are designing comprehensive product lines with our Climate Beneficial wool. One product line was issued in time for this reporting cycle, and we look forward to sharing more images as the clothing is birthed.

Mara Hoffman's Climate Beneficial wool sweater (photo courtesy of Mara Hoffman)



“We had 4,464 pounds of appropriate micron wool for the pool in 16 bales, we’re so excited to be a part of this wool pool, thank you for the opportunity and the help!”

– KELSEY NICHOLS
McCORMACK RANCH

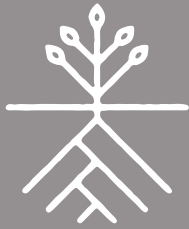


Left and above, pieces from the Italia A Collection, designed by Italia Hannaway (photos by Paige Green); below, Cory Gunter Brown’s new line with Bare Ranch wool and botanical printing techniques (photo courtesy of Earth My Body)

“Thank you Fibershed, and thank you for making this collection possible. Your work has changed my life. There is nothing like working with a truly local textile”

– CORY GUNTER BROWN



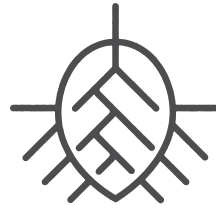


Climate Beneficial™ Agriculture Program

THE CLIMATE BENEFICIAL AGRICULTURE PROGRAM develops natural fiber and dye systems that contribute to the stabilization of our climate. Our work spans from researching and demonstrating agro-ecological practices to the efforts to revive heritage textile knowledge. We work directly with land stewards to produce peer-to-peer educational events, and we organize funding streams for the implementation of land management practices that build soil carbon and increase productivity naturally.

COMPLETED:

- On-boarded 7 new ranches into the Climate Beneficial Program through the new Entrance Survey, resulting in direct soil carbon measurement at their land bases: Ace 'n the Hole Ranch; Barinaga Ranch; Eames Ranch; Ferndale Farms; Macedo's Mini Acre Farm; Millertown Sheep Farm; Outlaw Valley Ranch.
- Refined protocols for annual practice implementation and carbon farm plan requirements by analyzing each producer in the program, updating current records, and creating an intake form
- Organized a total of 63 ranches within the Climate Beneficial Verification program pipeline, representing 171,311 acres of farm and ranch land; all of whom have had baseline soil samples taken, are implementing carbon farm practices, and are working towards a carbon farm plan
- Hosted 6 Zoom meet-ups with the Marin/Sonoma and the Mendocino Carbon Farm Cohort to include exchanging information, reviewing carbon farming principles, and using the Small Farms workbook discussion with a business advisor, Olivia Tincani.
- Organized 2 "Fibershed Carbon Farming Highlights" events; open to our Fibershed producer community and focused on specific aspects of carbon farming.

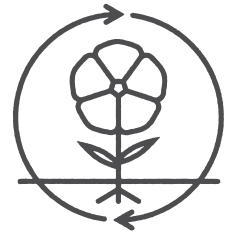
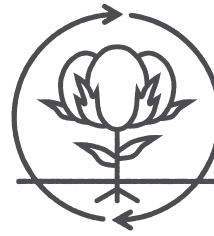
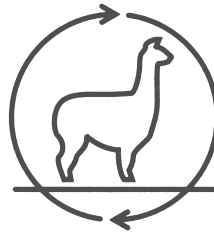


Carbon Farming, Planning, Implementation, and Policy

- Collaborated with Amanda Coen to create an illustration depicting a Northern California fiber focused Carbon Farming landscape. Embedded within this illustration is a series of "zooms" that present a close-up look at different key concepts presented in the landscape illustration.
- Created 3 new Quick Guides for the Fibershed carbon farming resource library: Compost on Croplands, Windbreaks and Shelterbelts, and Riparian Restoration (bit.ly/CFPracticeQuickGuides)
- Distributed the first 4 quick guides to the Fibershed producer community and shared the Compost on Rangelands Quick Guide with a network of Carbon Farming Planners through our partner organization, the Carbon Cycle Institute
- Modified the Small Farms Carbon Farming Workbook (bit.ly/SFCFPWB) based on feedback from Cohort 2

- Awarded seed funding to 12 Fibershed producer members for carbon farming projects involving 21 conservation practices across 242 acres; annual drawdown/sequestration of CO₂e (carbon dioxide equivalent) in the first year will be 156 metric tons (MT); projected sequestration over 20 years is 971 MT CO₂e.
- Co-signed 14 letters to government leaders and legislators
- Organized Carbon Farming tour for U.S. EPA Region 9 staff and administrators; co-hosted webinar on conservation equipment rental programs for technical service providers
- Represented Fibershed in meetings with California state agency leadership: NRCS, CDFA, Department of Conservation
- Participated in the California Food and Farming Network and the Healthy Soils Workgroup
- Supported Fibershed producer members in learning about and accessing Healthy Soils Program funding: 8 producer members received HSP funding totaling \$670,000 for 5 Incentives projects and 3 Demonstration projects

SINCE 2017, Fibershed has verified California fiber and dye producers through our Climate Beneficial program. Climate Beneficial producers have made a commitment to landscape stewardship that stores atmospheric carbon in the soil through verified management practices that simultaneously improve soil health, biodiversity, and forage production. Upon entry to the Climate Beneficial program, soil is tested at each landscape to set a benchmark for soil health. Producers implement management practices annually to continuously invest in the regeneration of their landscape and our shared future.



As of December 1, 2020, data for the Climate Beneficial Program was compiled from 2016. Since 2016, producers across the 63 landscapes in our Climate Beneficial program have implemented 156 practices across 13,213 acres. We estimate

these practices have drawn down approximately 9,274 metric tons of CO₂e since implementation. The ongoing drawdown impact of these already implemented practices will grow to 36,279 metric tons CO₂e in the next 20 years.

Carbon Farm Cohort & Carbon Farm Materials

BY ERIN R. WALKENSHAW

THROUGHOUT 2020 Fibershed continued our work to embolden producers to implement carbon farming practices on their landscapes and provide more resources to producers committed to carbon farming principles. To that end, the Carbon Farm Cohort program grew and adapted to the producers' needs and the unique circumstances presented in 2020.

We adopted new ways of gathering through a series of meetings over Zoom for both Cohort 1 (Marin/Sonoma) and Cohort 2 (Mendocino). For each group, the Zoom meetings served slightly different purposes. For Cohort 1, the meetings were an avenue to continue building and evolving their community, making plans for in person COVID-19 safe events and sharing resources. For Cohort 2, since the group started in 2020 and has not been able to gather in person yet, the meetings provided an opportunity for the members to get to know one another, to discuss principles of carbon farming and how they might apply to their specific landscapes, and

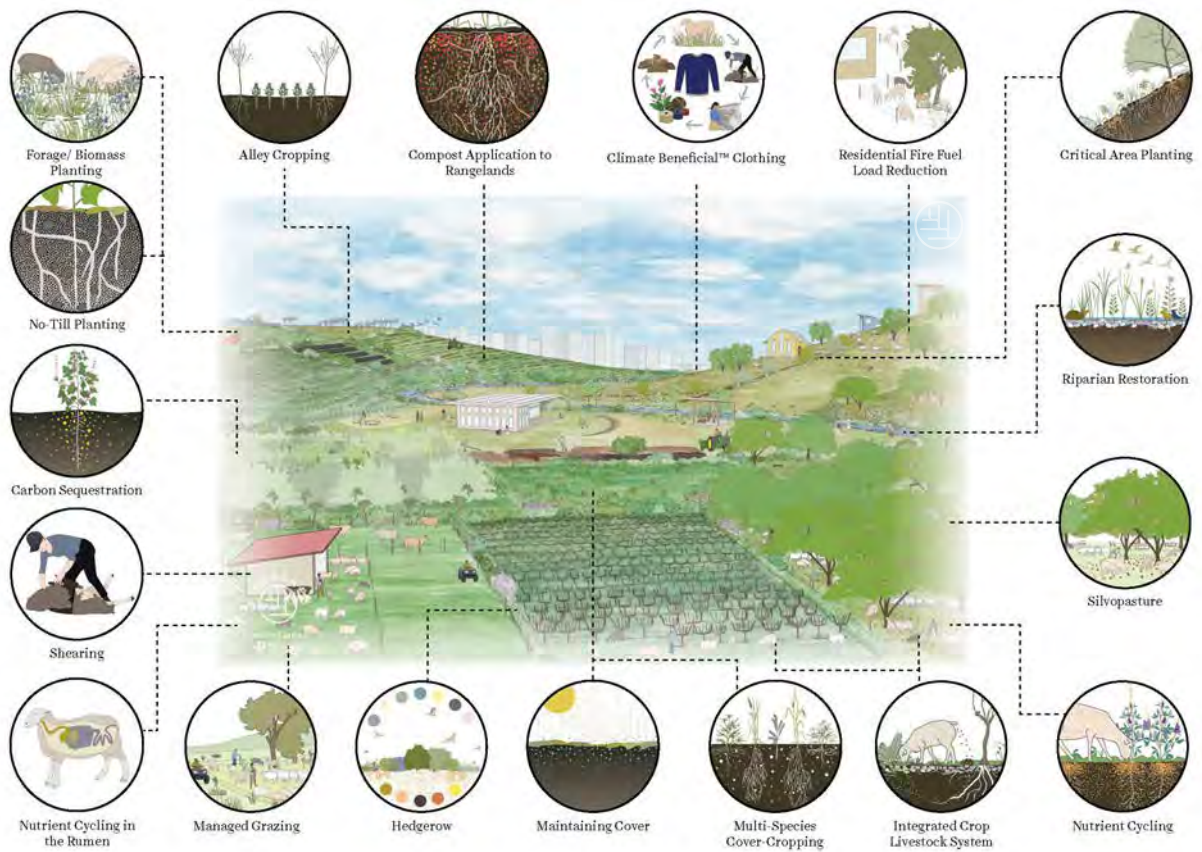
how to use the Small Farms Carbon Farming Workbook to help them identify and apply these principles. We also used these Zoom meetings to address other needs expressed by Cohort members, such as incorporating a time for a general "check-in" given the upheaval and social isolation that many people experienced in 2020.

We brought in a business advisor to speak with Cohort 2 as the first step in incorporating a business module into the Carbon Farm Cohort program in light of many of the members' economic hardships in 2020 and beyond. While we look forward to bringing the group together in the future for the in-person field walks that are a core component of the Carbon Farm Cohort program, we plan to continue having regular Zoom meetings. These virtual gatherings allow more producer members to participate and stay active in the cohort communities.

In conjunction with the Carbon Farm Cohort, Fibershed initiated a new series of events highlighting carbon farming practices at work on farms and ranches, "Fibershed Carbon Farm Highlights." These events are meant to be complementary to the activities of the Carbon Farm Cohort, and

thus the members of the cohorts are encouraged to attend, though they are open to the entire Fibershed producer community. For the first two events of the series, Fibershed organized a field walk style discussion at True Grass Farms in Marin focused on silvopasture systems in Northern California; and a workshop in collaboration with Rancher to Rancher at Red Creek Farm in Mendocino focused on managed grazing. These events brought together small groups of committed land managers, some of whom previously knew each other and some of whom did not, and the conversation continued beyond the events. For example, following the Silvopasture highlight, attendees engaged in multiple email exchanges offering plants, propagation advice, and other thoughts on the subject of installing woody perennials and silvopasture systems.

Fibershed also expanded and refined our carbon farming reference materials in 2020. We revised the Compost on Rangelands Quick Guide and added three more to the Quick Guides reference library: Compost on Croplands, Windbreaks and Shelterbelts, and Riparian Restoration.



Fibershed Carbon Farm Landscape (Illustration by Amanda Silvana Coen)



Below: Attendees discuss appropriate plant and site selection at the Fibershed Carbon Farming Highlight: Silvopasture at True Grass Farms. (Photo by Heather Podoll)



Above: Richard King discusses overgrazing with attendees at a Rancher 2 Rancher workshop at Red Creek Farm as part of the Fibershed Carbon Farming Highlights series. Right: Richard King conducts a rain fall simulation during the Rancher 2 Rancher workshop at Red Creek Farm as part of the Fibershed Carbon Farming Highlights series. (Photos by Erin Walkenshaw)





View all Quick Guides at the link here: bit.ly/CFPracticeQuickGuides. We incorporated feedback from the Cohort 2 producers using the Small Farms Carbon Farming Workbook and made the workbook available in multiple formats for ease of use.

Additionally, to better communicate the principles and opportunities in carbon farming, Fibershed collaborated with a landscape architect, Amanda Coen, to illustrate a landscape level perspective of a Northern California fiber, food, and dye carbon farm. The landscape illustration depicts a number of carbon farming practices in relationship with one another (See Fibershed Carbon Farm Landscape illustration on page 22). Embedded within the illustration is a series of “zooms” that present a close-up of important concepts. The landscape illustration and the zooms can be used in any combination or as stand alone pieces. These pieces allow Fibershed to incorporate them into future resource materials, educational discussions focused on specific carbon farming practices, such as hedgerows, and inspire discussions about what might be possible when many of these practices are employed. To view all illustrations, please visit: bit.ly/CFDrawings.

Carbon Farm Seed Fund

By HEATHER PODOLL

THIS YEAR, we developed a new program offering grants to support carbon farm practice implementation, available by an open application process to all Fibershed producer members through Fibershed’s Carbon Farm Seed Fund. In the first round of grants awarded in August, twelve producers received awards totaling \$52,992 for projects expected to result in sequestration of 156 metric tons (MT) CO₂e (carbon dioxide equivalent) in the first year. After 20 years, these practices will have resulted in an estimated 971 MT CO₂e drawdown. An additional \$8000 was allocated to the Mendocino Carbon Farming Cohort, to be dispensed by the middle of 2021.

Altogether these twelve projects will include implementing 21 carbon farming practices on 242 acres across the various farms and ranches. The diverse practices involved in these projects speak to the wide range of opportunities for carbon farming within our region: silvopasture, windbreak and shelterbelt, tree and shrub establishment, compost

application to croplands, compost application to rangelands, range planting, biomass and forage planting, prescribed grazing, mulching, cover crop, and conservation cover.

Below: Preparation for Silvopasture planting of mulberry trees at Integrity Alpacas in Vacaville, CA, made possible by Carbon Farm Seed Funds (photo by Charlene Schmid); bottom: The Carbon Farm Seed Fund supported this compost application to grazed rangeland at Bodega Pastures in Bodega, CA (photo by Abigail Killey)



Policy Support for Carbon Farming in Fiber Systems

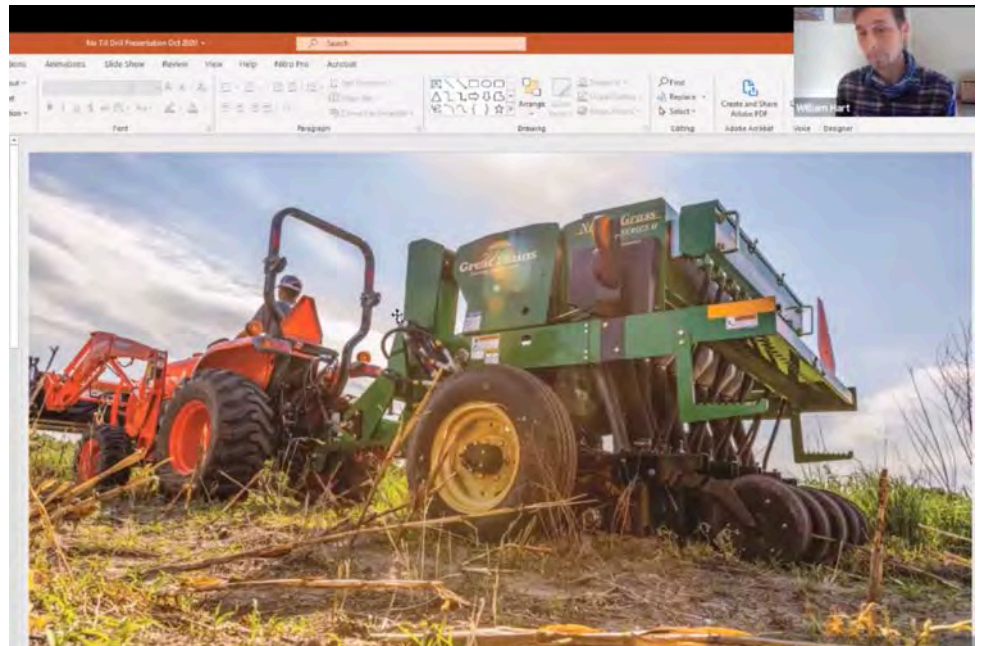
BY HEATHER PODOLL

State Agency Advocacy

In collaboration with our colleagues at the Carbon Cycle Institute, we presented Fibershed's work in California to five administrative leaders from the California Natural Resources Conservation Service (NRCS), including State Conservationist Carlos Suarez, in a meeting in June. We also participated in meetings this year with agency leaders from the California Department of Food and Agriculture (CDFA), Department of Conservation, Department of Natural Resources, and California Environmental Protection Agency. We actively participated in a series of workshops hosted this fall by CDFA to explore Public Private Partnerships and needs for state leadership in promoting Climate Smart Agriculture and Healthy Soils-based programs.

Collaboration with US EPA Region 9

The Solano County Carbon Farm tour that we organized for the US Environmental Protection Agency (EPA) Region 9 administrators and staff in January led to deeper exploration with EPA colleagues about barriers and opportunities for supporting carbon farming programs in California. A need for better access to carbon farming equipment (such as no-till drills and compost spreaders) has emerged as a theme across several regions of the state and from Fibershed's own assessment within our producer program. Following further combined research on equipment needs, rental program models, and funding opportunities, EPA scientist Cara Gillen collaborated with Fibershed and the Carbon Cycle Institute to co-host a webinar in November for technical service providers on conservation equipment rental programs and funding opportunities.



Above: In a webinar hosted by Carbon Cycle Institute, Fibershed and U.S. EPA Region 9, William Hart of Goldridge RCD in Sonoma County describes the no-till drill rental program that he administers for local producers (Image courtesy of William Hart); left: US EPA Region 9 staff discuss no-till equipment with Solano County producer Ian Anderson (Photo by Heather Podoll)

Coalition-building Advocacy

We continued this year as active participants in the California Food and Farming Network (CFFN) and the Healthy Soils Workgroup. This Workgroup convened in 2019 to develop recommendations to the State of California leadership for mobilizing a systemic approach to Healthy Soils strategies in California, including the achievement of Carbon Neutrality in California Agriculture by 2030.

This year, we provided content and signed-on to 14 advocacy letters submitted to various government and legislative bodies. These letters were directed primarily to agencies and policymakers in California, but a few were also addressed to national and even international policymakers. These letters covered topics such as support for economic recovery programs that prioritize farming systems, regional

infrastructure development, and climate resilience; pandemic relief targeting farmers and farmworkers; Greenhouse Gas Reduction Fund expenditures prioritizing Healthy Soils and CalRecycle programs; Worker Owned Cooperative transition programs; and policy recommendations to reduce microplastic pollution at one of its most critical sources: by shifting incentives to favor natural fiber textile systems over synthetic plastic-based fiber and textile production and use. In August, we submitted comments to a European Union Commission on substantiating green product claims. We emphasized that policy frameworks must consider how to incentivize renewable natural material resources with end-of-life biodegradability, sourced from carbon-sequestering landscapes that can provide beneficial ecosystem services coupled with natural fiber and other agricultural production.

California State Funding for Healthy Soils Farming and Ranching Practices

Since the California Healthy Soils Program (HSP) launched in 2017, Fibershed has been advocating at the state level for increased funding and improved accessibility to the program for our producer community. We have also been sharing program information and application support with our producers. This year, we saw more interest in the program than in any other year to date. Fifteen producers either applied or were in the process of completing an application when the program closed early in May due to an unexpectedly high volume of applications. Five Fibershed producers received incentives program awards for projects expected to sequester 513 metric tons of CO₂e per year. Altogether, 36 producers engaged in conversations with Fibershed staff regarding interest in receiving support for carbon farm practices through the program. We are excited about the growth of interest in receiving support for carbon farm practice implementation within our producer community and will work with our producers in the coming year to explore more opportunities for support and funding.



Guido Frosini of True Grass Farms in Marin County (at right) received an HSP grant this year to support installation of a new hedgerow. (Photo by Heather Podoll)

Healthy Soils Program (HSP) Demonstration Grant Partnerships

Fibershed is collaborating as an organizational partner in two HSP Demonstration grants awarded this year. The University of California's Hopland Research and Extension Center is demonstrating a diverse hedgerow in their sheep grazing systems, emphasizing native plants, sheep forage plants, pollinator habitat, and natural dye species. Fibershed staff assisted with developing the project application, plant palette, and natural dye plant selection. Fibershed will support the project through outreach and support for on-site field days, including natural dye workshops.

We are also partnering with White Buffalo Land Trust, National Center for Appropriate Technology, UC Cooperative Extension of Kern County, and the Gonzales-Siemens family in a cotton alley cropping project in Kern County. For the past two years, Fibershed has supported an emerging project to develop an innovative alternative model for cotton production in a particularly damaged agroecosystem in the San Joaquin Valley. Nathanael and Bekki Gonzales-Siemens are exploring organic, no till management practices to restore soil and ecosystem health in a highly salinated cropland outside Buttonwillow. This year Fibershed provided ongoing support for establishing combined fiber (cotton) and food (corn and squash) production in this regenerating landscape. After a second year slowly increasing success with building soil health through multispecies cover crops, organic management, and animal integration, the State of California will provide amplified support through the Healthy Soils Program to demonstrate an alley cropping system incorporating mulberry and fig production with cotton crops grown in alleys between the rows of trees. The deeper-rooted trees, incorporated within a suite



Mulberry tree starts are cared for by Bekki Gonzales-Siemens to prepare for the alley cropping for cotton project, located in Kern County.

of supportive practices (including compost application, multispecies cover cropping, minimum tillage, and biological seed inoculation using compost produced with a Johnson-Su Bioreactor built on site earlier this year) will help to establish healthier water infiltration and movement through the soil system. Building organic matter will buffer and support a more dynamic and fertile soil ecology. Field days, articles, podcasts, and informational materials produced through this project will share the results of this pilot project with growers throughout the region. We are excited to support an alternative vision of more opportunities for income generation and diverse production models for food and fiber, and improving biodiversity and ecosystem health throughout the San Joaquin Valley.

COMPLETED:

- Created an online app to survey participants' closet contents; we collected over 800 clothing samples to understand fiber content (by volume). All data is being collected to inform policy work in 2021 and beyond, specific to plastic fiber fragmentation impacts in marine and soil ecosystems
- Provided bi-lingual training in ArcGIS to shepherds, providing them the ability to pinpoint on-the-ground areas where grazing has occurred to support the creation of accurate data sets for Regen Network's satellite monitoring team
- Documented and mapped through ArcGIS over 3,000 acres grazed by shepherds in the winter season through March 15; developed an initial draft of the monitoring methodology
- Completed a comprehensive landscape assessment to analyze all current resources that correlate to integrated sheep in vineyard systems (ISVS), including sustainable wine certifications to Natural Resource Conservation SISC Metrics
- Co-developed blog article with Regen Network: Modern Day Pastoralism: Re-Defining the Economics of Rotational Sheep Grazing on California Vineyards (bit.ly/ICLSBlog)
- Fibershed-supported literature review was published by PhD candidate Kelsey Brewer and primary investigator Dr. Amelie Gaudin in the well respected scientific journal of Soil Biology and Biochemistry (bit.ly/ICLSLitReview)
- Composed and sent letter promoting grazing for fuel load reduction to 152 state agencies, 53 Boards of Supervisors, and 175 Fire Safe Councils



Fiber Systems Research

- Established 4 new grazing cooperatives in 2020: Hunter's Grazing Cooperative, Hunter Lane in Santa Rosa; Neighbor Gate, Middle Two Rock Road in Petaluma; Rachel's Community Grazing Project, Eucalyptus Road in Petaluma; Pay it Forward Community Grazing Project, Cleveland Avenue in Petaluma
- Established mentors in 3 of the 4 grazing cooperatives that are willing and interested in becoming mentors for future grazing communities
- Provided 9+ hours group mediation and technical assistance for 2 community grazing programs and their collaborative efforts
- Coordinated and initiated the execution of a three-year research trial that includes the following partners: The Center for Regenerative Agriculture and Resilient Systems; Bowles Farming Company; University of California Extension Service at California State University, Chico; The National Center for Appropriate Technology; and California Ag Solutions Cooperative
- Developed a research scope for the three year trial that includes analyzing in-field cotton yields associated with soil regenerating practices and determining the true cost of production associated with the elimination of synthetic nitrogen fertilizer, removal of glyphosate-based herbicides,

removal of fungicides, removal of neonicotinoids, and the inclusion of multi-species cover crops, fungal dominated compost, and elimination of broad acre tillage

- Completed soil baseline testing at Bowles Farming Company in the autumn of this year on our 64-acre research plot, including: 48 composites, bulk density, water infiltration, and aggregate stability
- Collaborated with Lone Willow Ranch in March 2020 to terminate a multi-species cover crop using flail mowing to analyze cover crop regrowth and test the efficacy of the removal of herbicides from a no-tillage system (typically, herbicides are used in no-till systems)
- Worked with University of California Extension Service to produce the following webinar for growers: youtu.be/rEm8pjbbnaE
- Developed open source information on hemp processing equipment
- Offered public education on hemp growing, harvesting, processing (bit.ly/HempCasitaBlog)
- Modeled the application of hemp-infused bricks for construction of low-cost, locally based structures or micro-homes
- Identified and acquired hemp seed from 2 domestic suppliers; grew and saved local seed for the third year in a row
- Detailed the planting, growing, harvesting, retting, and storage of industrial hemp through detailed articles and photography
- Harvested 10,000+ lbs of dry hemp stalks for further research
- Delivered 10,000 lbs of dry hemp stalks to a decorticator in NC for processing and fiber testing

Integrated Crop & Livestock Systems

BY REBECCA BURGESS

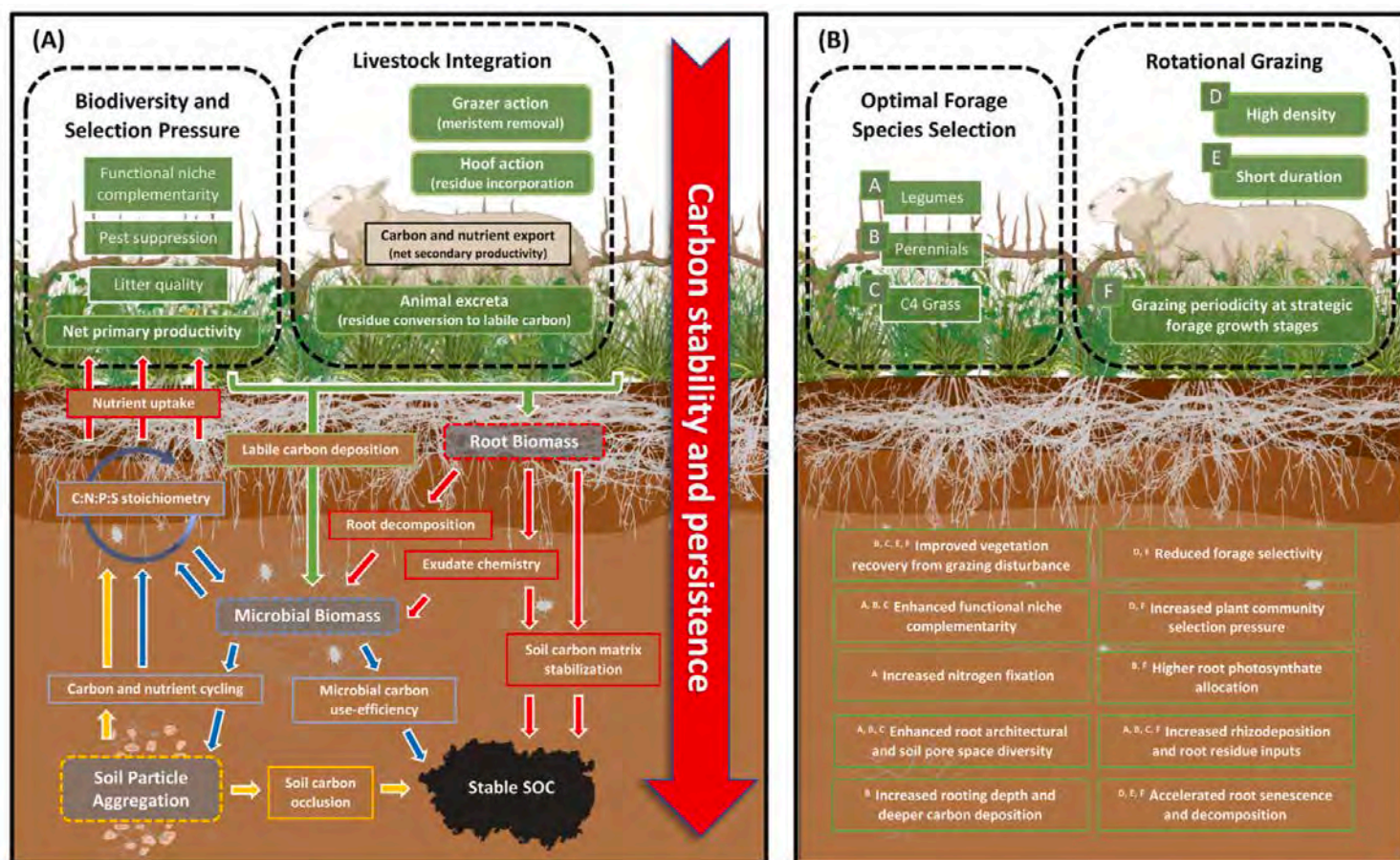
FIBERSHED has been working with contract grazers for the duration of our organization's existence (10 years). In that timeframe, we have been learning, evaluating, and distilling methods to directly support the enhancement of this agrarian way of life that provides both fuel load reduction services and organic methods for cycling nutrients in croplands. In most cases, contract grazers do not own their land, or they do not operate on a land base large enough for the herds and flocks they manage—they are mobile by nature and move animals through landscapes at a pace that is

specifically designed to produce an ecological outcome. Grazing contracts, the price of wool, and the value of lamb are the focal points of a grazer's business model. Yet, when California wage laws were modified last year, an already low margin business was put at greater economic risk.

As has been mentioned in many of our prior reports, Fibershed has been working with the Gaudin Lab at the University of California Davis for four years to research the benefits of sheep's impact in perennial cropping systems—specifically vineyards (California has 800,000 acres of vineyard). Based on that research, we have noted positive soil health impacts, including increases in plant available nutrients, increases in carbon sequestration, increases in microbial biomass, and improved

water infiltration. The work to shine a light and attention on these soil health improvements is now gaining increased traction.

In August of this year, Fibershed was awarded a two-year Conservation Innovation Grant (CIG) from the California Natural Resources Conservation Service (NRCS) to support the development of a satellite verification methodology for new financial incentives to improve the economic viability of contract grazing in California vineyard systems. This project is a partnership with Regen Network Development, Inc. (RND), whose study of Fibershed producers practicing targeted prescribed grazing in vineyards in 2019 showed that satellite imagery is efficient for detecting grazing from Normalized



Nutrient and carbon cycling in ICLS managed systems. Shows the potential of crop-livestock integration to enhance carbon sequestration and agroecosystem functioning in semi-arid croplands (Illustration by Kelsey Brewer)

Difference Vegetation Index (NDVI). This CIG project will allow us to expand the sample size of monitored land to 4,300 acres of prescriptively grazed vineyards across three participating producers' properties. RND will apply machine learning algorithms to the larger data set, refining the preliminary methodology and ultimately producing a reliable method to detect grazing remotely, with the intention of using this data to issue a holistic vineyard management and soil health-based credit that will provide a new and needed source of support for innovative integrated crop and livestock grazing practices. Project results will be communicated to key stakeholders, including producers, technical service providers, and contract grazing operators through a field day event in the project's second year, and a two-page brochure describing the verification methodology and incentive opportunities to improve accessibility and adoption of targeted prescribed grazing in vineyard systems. As the methodology is formalized, it will be made public on RND's website and made open-source.



Above, a regularly grazed field at the Oak Granary in Potter Valley, CA during September 2020. On the left, an ungrazed area just 20 feet away. Which field would you rather be surrounded by during fire season? (Photos by Marie Hoff)

Grazing is a Wildfire Solution

BY MARIE HOFF

MILLIONS OF ACRES in California grow vegetation in the spring, only to dry out by fall and become fuel. Grazing is the only vegetation management practice that is scalable to millions of acres. It's also the only vegetation management approach that can draw down more carbon than it emits, making it the most climate-appropriate practice available. In 2020, Fibershed funded producer member Marie Hoff to advocate for grazing on public lands for fuel load reduction. Marie worked with the longtime shepherd and former UCCE Livestock Advisor, Roger Ingram, to compose a letter to various public agencies, urging the use of targeted grazing. California

Woolgrowers Association sent out the letter over the summer. Recipients included NRCS offices, RCD offices, the Board of Supervisors for each county, CalFire, the Forest Service, and Fire Safe Councils across the state.

Following this outreach, California Woolgrowers is beginning to develop a strategy to approach lawmakers about public funding for grazing used in fuel reduction alongside the coalition CalCAN. Through Fibershed support, a survey of graziers in California is being developed to gain insight into what grazing is currently being done, what more could be utilized, and what it would take to accomplish comprehensive grazing to scale. California Woolgrowers hopes to work with CalCAN to provide on-the-ground data for a public policy proposal in 2021.

Excerpt from CWGA letter to agencies, written by Marie Hoff and Roger Ingram:

The California Wool Growers Association (californiawoolgrowers.org) is a non-profit trade organization representing California's sheep and goat producers, with a number of our members working in targeted grazing. Used with consistent success by many public agencies to manage fuel load, grazing also includes the co-benefits of increased carbon sequestration, provides an ecologically-sensitive alternative to chemical herbicides, is popular with the general public, and supports the future of agriculture in California. Included in this email are resources to help you find and make use of contracted grazing operations to meet your vegetation management and fire mitigation goals.

Fire season in California has become a year-round issue. Wildfires are not only more frequent but far more devastating. Targeted grazing saves important ecosystems and neighboring cities and towns that may be threatened by wildfire by reducing vegetation before it becomes a hazard. Research in Nevada found targeted grazing reduced fuel characteristics such as fuel bed depth, percent cover and fuel loading, resulting in reductions in flame length and rate of spread. (Diamond Joel M., et al (2009) Effects of targeted cattle grazing on fire behavior International Journal of Wildland Fire 18, 944-950). More recently, in the 2019 Easy Fire near the Ronald Reagan Library in Ventura County, a CNN article (Reagan Library 2019 Fire) noted that 500 goats grazing around the library in the spring created a firebreak that helped fight the fire in the fall. Targeted grazing has successfully reduced fuel loads across the state in over 26 counties. Examples include East Bay Regional Parks District, other public agencies, fire districts, cities, and homeowners' associations.

Sheep and goats are able to penetrate areas that are too steep to get to with mechanical equipment, as well as service large tracts of land that may be beyond the reach of prescribed burning. Grazing is the only fuels treatment that removes biomass and moves it into the soil. As the forage on these landscapes is rarely rich enough to fatten animals to make a profit on meat sales, contracted targeted grazing focuses attention on vegetation management goals as a service, and as such it charges a fee for service as do other tools and methods.

Attached is literature from Range Management Advisory Committee (RMAC), the advisory committee to the Board of Forestry and Fire Protection, for more of an overview of targeted grazing. It provides information on things to consider when hiring a grazing contractor and how to issue a Request for Proposal (RFP), with examples included.

How to find the right grazer: Typically land managers find grazing operations in one of two ways. They either find and reach out directly to a contractor, or they issue an RFP and pick from a group of applicants. To find and reach out directly see CWGA's Directory (CWGA Targeted Grazing Directory), or contact your local UC Cooperative Extension office (find your local office at ucanr.edu/About/Locations).

"I'm in Fairfax, near the open space areas where your goats worked last summer. A small tree there was struck by lightning during the August thunderstorm, and NOTHING caught fire. The money, homes, and lives saved in the neighborhood is owed to the work of land stewards like yourselves. Thank you."

– DANA ESAU, RESIDENT

Community Grazing Cooperatives

BY SARAH KEISER

OUR ECOSYSTEMS are changing more rapidly than we expected. Since 2017, California has surpassed the record for the number of acres burned and dwelling destruction. Our Northern California residents are frightened, and many leave because they lack the tools to provide their own fire prevention, not because they do not have the interest or energy. The Community Grazing Cooperative model addresses the need for active fire fuel load reduction at a local level. This model was developed as a place-based, community-oriented, grassroots movement for fire safety, soil carbon enhancement, chemical applications reduction, and ecological regeneration. The program incorporates the unique partnership between the community, grazing, and balanced ecosystems. By providing tools and support to each community grazing cooperative, we empower them to resolve their fire safety concerns and connect them to their innate ability to resolve large issues on a local level. In 2020 we supported the development of four new grazing cooperatives. Community members expressed their relief at having tools to create a fire-safe neighborhood, a deeper understanding of their land, and a willingness to act as mentors for future grazing cooperatives.

In 2021 we plan to develop eight more community grazing cooperatives that will address the needs of rural communities with the following outcomes:

- Reduction of fire fuel loads in the Wildland Urban Interface to reduce fire risk for eight rural communities
- Livestock to provide meat to food-insecure households
- Deeper connection to local floral and healthy ecosystems

Below: The Hunter Grazing Cooperative's new sheep out on pasture!; right: Rachel's Grazing Cooperative with her happy goats; bottom: Pay it Forward Cooperative



"Until I met Sarah Keiser and learned about the proper way to rotate my herd around the field, we spent time and money mowing grasses that should be used as good fodder. We wasted gas, produced exhaust, and lost good nutrition that we now get right to the animals. The bonus is that the animals give it back in the form of fertilizer, spreading the manure evenly across the fields as they move around."

– HUNTER GRAZING COOPERATIVE

"We four neighbors are super-excited about this, and deeply grateful to have Sarah's help. Bo and her partner Khouansiva were actually seriously considering moving out of state, to escape the now-annual fires and smoke. Being able to be pro-active with a neighborhood grazing project, while it doesn't solve all the fire problems, has renewed our deep desire to stay in the home we love, and near the neighbors we have known for years."



From the Neighborgate Community Grazing Cooperative:

“This year badgers have hunted gophers in my paddocks, and I have seen more Western Fence lizards and gopher snakes than ever before. For the first time in 23 years, I found a garter snake in my paddock! I am thrilled at the perennial grasses that are appearing in the summer pasture that I am resting.”

– RACHEL’S GRAZING COOPERATIVE

Community Supported Grazing Technical Assistance

BY OLIVIA TINCANI

THIS YEAR Fibershed provided support for Grazing School of the West in project management and business technical assistance. Several Ojai-based entities (in Ventura County) could get closer to their goal of establishing a Community Supported Grazing Program (CSGP) for fuel load reduction. The program will collaborate between public and private land managers and independent grazing entities to establish communal grazing plans for fire fuel load reduction across the Ojai Valley. The grazing program is expected to launch next year with grant funding secured through the Ojai Fire Safe Council. Fibershed has sponsored Olivia Tincani to advise the project; her work has included editing grant proposals and generating letters of support for the work. Her involvement will grow in 2021 as the project is operationalized on the landscape.

“Olivia demonstrated the skill to moderate and build the community grazing collaboration between BCB and me. The two of us have community grazing concepts with very different themes. Not only did Olivia guide us in our organization, she brought on additional parties who were also doing community grazing projects. We are building while supporting each other and working towards creating an online graziers tool kit with the community grazing model as an option. Her input and editing were critical in me, bringing out and clearly articulating my vision.”

– SARAH KEISER
PENNGROVE GRAZING PROJECT

In Northern California, technical assistance was provided to Sarah Keiser of the Penngrove Grazing Project and Brittany Cole Bush of the Ojai project to collaborate on creating models for CSGPs across the state. The team generated new ideas for successfully operationalizing new community grazing projects in fire prone Sonoma County and to encourage additional CSGPs in the state by outlining what aspects of the model work and why.

Mapping Our Textile Flows: CA Closet for Climate and Ocean Health Project

BY KIRSTIN MILLER

FIBERSHED and Ecocity Builders collaborated to collect, assess and map data that was gathered from survey participants' reported sampling of their closet contents (clothing). To administer the survey, Ecocity and Fibershed worked with volunteers from Apple and Google to build an online closet app. Through the app (tinyurl.com/ca-closet), clothing information was solicited, collected, visualized, and mapped in a standardized process to develop a quantitative baseline analysis of fiber flows. The resulting fiber information system is a communication tool to show the flow of fibers and their impacts from sources (countries), through our closets, to sinks (ecosystems).

The project spotlighted plastic in the fiber system and its accumulation as microfiber pollution in the environment and explored the feasibility of substituting synthetic fibers with natural material (wool, cotton, flax, and hemp) sourced from the Western US fiber region.

"This mapped organization of resources is so helpful. It visually articulates what can be connected."

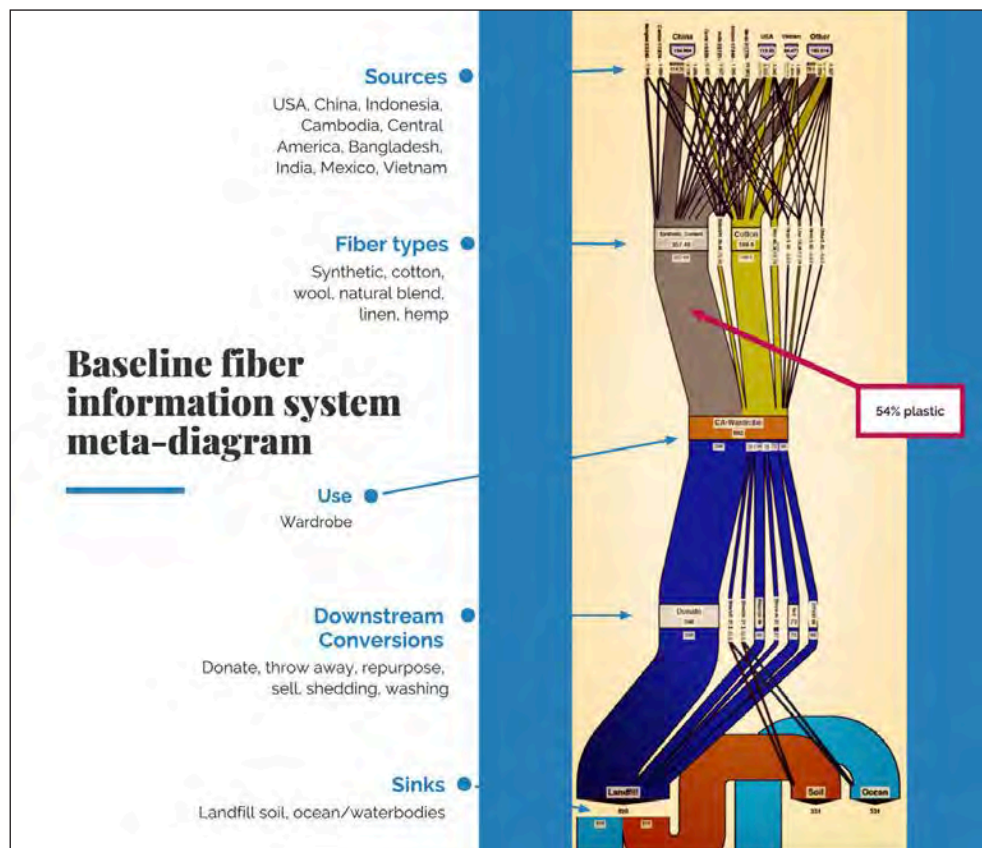
— SOCIAL MEDIA POST

Key insights from the project's assessment and analysis:

- Plastic in the fiber system cannot be sufficiently broken down or mitigated so that it is not harmful to the environment
- In order to remove it from sea and soil, we need to remove plastic from our fiber systems and substitute with natural fibers
- Each USA fiber region can return currently outsourced fiber processing systems, rebuilding America's textile economy AND, if done responsibly, in a way that adds jobs and helps, not hurts, the environment (regenerative grazing, carbon sinks, green manufacturing)

The assessments and visualizations support ongoing multi-stakeholder decision-making processes to drive environmentally and socially healthy production chains and businesses, support local job creation, and rebuild markets for regionally produced goods and services. Co-benefits for cities and the environment include de-linking economic growth from socio-environmental damage, driving new and innovative policymaking, strengthening competitiveness and innovation capacity, and accessing new markets.

We invite you to review a PDF of the presentation here: bit.ly/ClosetsPDF



Baseline fiber information system meta-diagram (Ecocity Builders)

Central California Cotton

BY REBECCA BURGESS

IN NORTHERN MERCED COUNTY, two farms defined our cotton collaborations in 2020, both of which remain within the ownership and management of families for three and six generations.

San Joaquin Valley cotton systems are part of a larger arc of food production in California, including a crop rotation of tomatoes, onions, garlic, cotton, and sometimes wheat. The soils producing these foods are the soils that also grow this fiber. Winter fallowing is very common in the San Joaquin Valley and leaves the soil to erode and compact during California's rainy season. A situation that is furthering the inability for the aquifers to recharge, and depleting soils of their natural nutrients—forcing more synthetic chemistry into the system to maintain productivity levels. The topsoil is part of an ancient alluvial flood plain, in this case, nourished by the San Joaquin, Merced, and Stanislaus Rivers and the marine nutrients of the once plentiful salmon runs. In recent years, the land has been managed with such practices as tillage, synthetic nitrogen, pesticide, and herbicide applications, all of which



Below, John Teixeira of Teixeira and Sons terminates an organic multi-species cover crop (left) in preparation for cotton with mechanical mowing; omitting all use of synthetic herbicides



have led to a need for repairing these soils and, in turn providing cleaner environments for all members of the ecosystem.

The long arc history of this landscape, including Spanish and then subsequent layers of Anglo European colonization, is a history rife with ecological and cultural damage. Repair work will require many formulations and approaches. Before entering this region within the San Joaquin Valley, we asked

ourselves, 'Who is willing to attempt that repair work and currently has the agency to do so?' We are also aware that the current fiber of focus (cotton), and the rotations of food crops that are currently planted, may not be the future crops for these soils, and the farmers understand this. As snowpacks continue to decrease, irrigation becomes less available. As groundwater recharge is mandated by state law, and the land is increasingly fallowed, the course of our food and fiber system is destined to change. Yet, there is no time like now to start repairing the soil ecosystem to create a ripe foundation for what emerges.

Today, those currently farming these particular landscapes face the uncertainties of maintaining family-owned businesses in the face of looming larger agricultural conglomerates, housing developments, and commercial real estate developers speculating on nearby land. As farms become larger to stay in existence, export-focused markets grow, and soil health and place-based thinking erode further.

Our work in cotton systems is in its third year. While inherently complex, it continues to provide a platform for air, water, and soil improvements in an



Bowles Farming Company is joining a research field trial implementing Carbon Farming Practices, organized by Fibershed and the Center for Regenerative Agriculture and Resilient Systems at CSU Chico. (Photo by Paige Green)

area of our state and country that is very much in need of being supported to advance positive ecological outcomes. Our demonstration-focused research projects are being built simultaneously to developing local markets grounded in the true human and environmental cost of the production of cotton. The more localized our economic exchanges become (from soil to skin), the more attuned our community becomes to the complexities and nuances of land stewardship. In the write-up specific to the California Cotton and Climate Coalition, we discuss our work to regionalize and de-commodify cotton in more depth.

Clockwise from top: Research Design for Bowles Farm, testing a regenerative system to a conventional system; setting up research design at Bowles Farm; no-till multi-species cover crop being planted at a site at Bowles Farm in November of 2020; fungal dominated compost; cover crop seed for Bowles Farming site coated with fungal dominated compost

Bowles Farming – Cotton Project

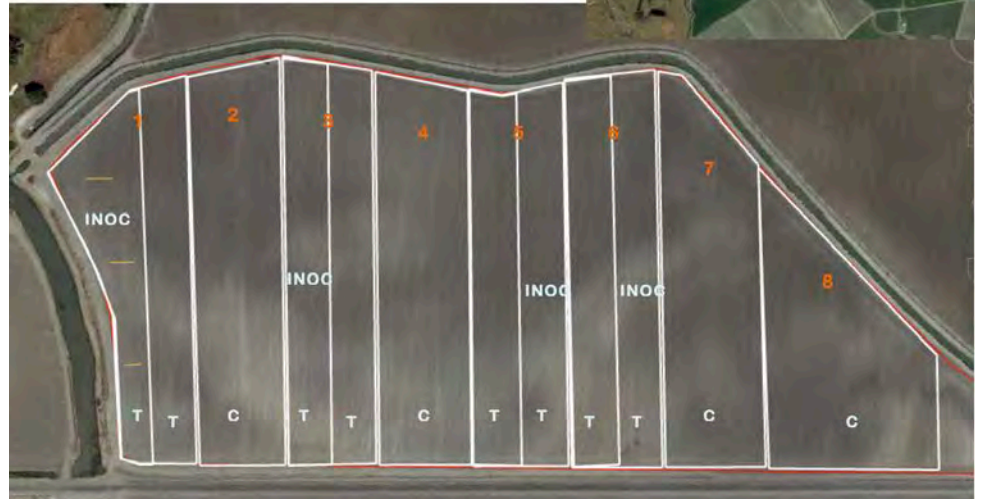
1-8: plot number

T: Regenerative practices; T (INOC): Regenerative practices + Inoculation

C: Standard practices

Soil samples: 3 composite samples of 5 cores per treatment plot, evenly spaced across plots

Temp & moisture probes: 1 per plot, placed 20 ft from field edge



La Casita de Adobe

BY ARNOLD VALDEZ

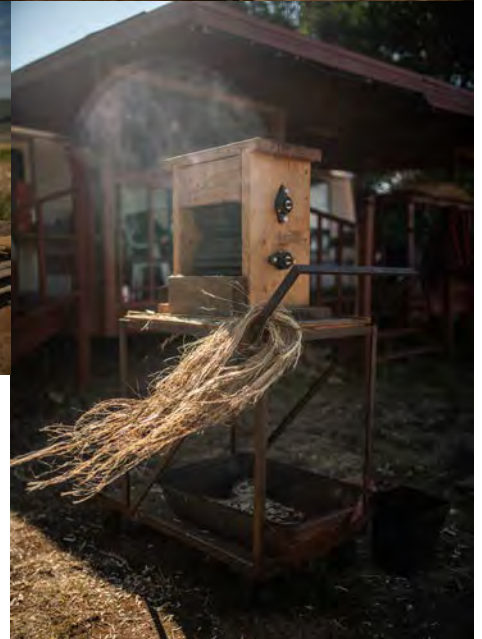
LA CASITA DE ADOBE project is the culmination of four years of work with Fibershed. Rezolana Institute started growing Industrial Hemp in 2015 and grew small acreages of hemp until 2019. Rezolana Farm grew and harvested hemp for small-scale demonstrations of growing, harvesting, and processing hemp during this period. In collaboration with Fibershed, each crop was documented and used for homestead applications and public workshops. A table top hemp break and small decorticator were developed and open source plans were offered as a free source of information individuals and groups interested in processing Industrial Hemp. As a result of the decortication, a surplus of hurd or shiv was obtained for use in applications relevant to construction purposes.

The hurd was used to make compressed earth blocks (CEBs) and traditional adobe bricks. A technical paper and attendance at Earth USA 2017 conference in Santa Fe presented the first findings and information about the process. Since then, research continued on incorporating the hemp infused blocks into a small project that could demonstrate the use of CEB's in a traditional adobe structure. During the Summer of 2020, an existing 10' by 10' concrete slab located on Rezolana Farm was selected for the building site. Locally available traditional adobes were used for the walls, while hemp infused CEB's were used to build the vaulted roof, earthen plasters, and earthen floor. The construction of the building was able to engage individuals interested in learning about hemp construction. Two public workshops were offered to help in building the structure.

The completed project was documented in great detail with photos, notes, and a journal of daily activities. The building was subsequently nominated to the Hemp Building Slam held by the

"Having a knowledge of hemp culture and its application to real world projects is a wonderful and enlightening experience"

– ELIZABETH AGEE, WORKSHOP PARTICIPANT



2020 Hemp Building Summit, a virtual event. The structure was one of four buildings selected for a presentation and evaluation by the summit participants. Overall, the building was well received by the summit and continues to attract attention from other organizations interested in housing applications, such as the San Francisco Homeless Challenge (SFHC). As a result of meeting with SFHC, Rezolana farm will be building a 6-foot by 12-foot tiny house on a mobile trailer to demonstrate how hemp can be used to insulate the walls, roof, and interior finishes. This project begins in the Fall of 2020 and will be completed by the Spring of 2021.

The hemp casita was built through a workshop experience with students who came from the surrounding area to learn how to 'grow their shelter.' The hemp break (shown above) was built and designed by Arnie Valdez (lower left) and is part of Fibershed's open source blueprint collection for on-farm human powered tools. The break allows farmers to test their fiber for strength and tensile length straight from the in-field dew retting process. (Photos by Koa Kalish)

Industrial Hemp and Carbon Farming: Research, Education, and Capacity Building

BY TYLER K. JENKINS

OUR OBJECTIVES for 2020 were to identify and acquire industrial hemp seed, grow and report on a field production model, and facilitate a fiber processing trial. Further, we explored the possibility of carbon farming in North Carolina. This work has educated, trained, and informed key partners in the Southeastern US and beyond on hemp production and carbon farming through media spotlights, articles, movement building, and networking.

Searching for seed aided in understanding the current state of industrial hemp seed markets and what seed is available to be purchased domestically and internationally. We built relationships with two reliable seed distributors and acquired 1,000 lbs of seed for research of two different varieties. We were able to acquire and trial the Ukrainian Bialobrzekie seed and reproduce the Chinese variety, Jinma, we currently had.

Bialobrzekie was recently shown as the top performer in the University of Kentucky's field trials. We would be able to reproduce this trial next year with this seed and ensure the ability to acquire seed through these companies if need be. There is viable seed coming into the United States at this point, and it will only get easier to purchase as more people do it. The next steps with seed acquisition are to explore the landscape of seed suppliers and acquisition and distribution opportunities more thoroughly.

In field production, we raised 30 acres of industrial hemp and harvested around 20 acres of it—about 7-9 feet tall—for fiber, and 10 acres were harvested for seed. Our trial was 100% organic (non-certified), utilized simple machines and hand labor, about which we published two articles with research and educational material (with one more forthcoming). The field trial was successful, with one caveat—rain. We had bad luck with too much water from the beginning of the crop season. While the rain washed away our nutrients, we believe this was the only thing holding us back from weed-free ~10-12 foot tall stands of hemp. Even still, we built some areas of success and harvested north of 10,000 lbs of dry stalks for

“We have got to figure out seed, Tyler. We can grow this crop easy enough, it's different, but we can grow it. But there's no way to build this industry without that seed.”

— FARMER JEFF GRIFFIN

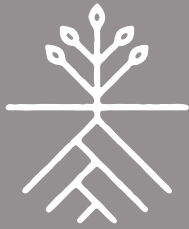
“After two years of working with and trialing your hemp, we think we have discovered an efficient process for hurd-free fiber.”

processing. We had a quality variety of seeds and now have a model for growing this crop year in and year out. This year's continued learnings helped us better understand what month to plant, how deep to plant the seed, what to expect in a wet year, and other production specifics.

In November, we delivered field-grown hemp to a North Carolina processor for decortication and degumming. We saved some to be processed through a motorized on-farm decorticator and antique fiber separator machine. We have a processing line and labor set up to start at the end of the farming season (beginning of December). One machine we would like to add to the rotation trial is a scutcher, but unclear if we'll be able to acquire one suitable enough before our processing schedule. The machines we have should suffice to get us hurd-free long-staple fiber. By the end of December, our goal is to have hurd-free long-staple fiber from which to move on to the next step. As of current, the processing partner we sent hemp stalks to be processed through has built a successful process to rid the hemp of hurd and maintain its length. Stabilizing this process, and softening, are our next steps.



Farmer Jeff Griffin poses with North Carolina grown organic industrial hemp. The stalks in this photo will be used for hemp fiber softening trials. (Photo by Tyler Jenkins)



Consumer Education & Advocacy Program

FIBERSHED WORKS TO CONNECT wearers to the source of their clothing, shifting the demand away from fast fashion and towards ecologically sensitive, locally grown and made products. A series of educational events, curriculum development, and digital communications offered to the public throughout the year develop soil-to-soil material awareness and build support throughout our communities.

COMPLETED:

- Produced and executed seasonal cycles of educational content across channels that illuminates core programming and thought leadership, boosts the work of Fibershed communities, and is rooted in the soil-to-soil activities from agriculture to material culture (see milestones and topics below)
- Created and distributed 20 email newsletters
- Leveraged social media platforms to expand outreach, enhance engagement, and provide educational content with a weekly cadence averaging more than 20 posts across Instagram, Facebook, and Twitter
- Supported journalist outreach, queries, and education for a total of 50 in-depth press features and promotional exposure, including national, global, and multimedia coverage
- Launched the second season of the Soil to Soil podcast spanning educational topics from the soil microbiome to Kincentric ecology to regional manufacturing
- Developed and integrated a suite of communications strategy tools including an adaptive editorial calendar, shareable graphics templates, and strategic launch planning documentation for output on projects, events, and program updates
- Assessed and initiated a comprehensive website update to serve new projects and update how core work is presented and communicated



Education, Communications, Events & Trainings

- Co-produced and managed development of a six-part data visualization series to communicate the connections between Climate Beneficial systems, social and environmental justice, and public health, in partnership with Slow Factory Foundation
- Executed a 3 -part online series on Regenerating Our Textile Systems, offered for free to a public audience of over 1,300 design students, brands, sustainability influencers, and community members
- Provided over 30 presentations through panel discussions, keynote presentations, and topical talks
- Offered 9 livestream demonstration courses which are now available on Fibershed's Vimeo On Demand channel (vimeo.com/fibershed/vod_pages) via the Fibershed Learning Center. Topics include natural dyes; flax growing and processing; indigo growing and vat making; sewing tips; indigo pigment extraction; knitting

with local yarns; making inks, paints and pastels from indigo pigment; and weaving on a rigid heddle loom

- Hosted 580 students from 16 countries and territories as participants in the 9 virtual Learning Center demonstrations (Brazil, Canada, Finland, India, Israel, Luxembourg, Mexico, Morocco, Norway, Portugal, Puerto Rico, Qatar, Sweden, Switzerland, United Kingdom, United States)
- Developed 3 sets of graphics for cotton, wool, and dogbane that present visions for regenerative production in California, paired these with place-based textiles, produced videos presenting each, and shared materials at Fibershed's Symposium and online
- Designed and deployed the most cross-disciplinary Wool & Fine Fiber Symposium we have issued to date, with daily spotlight speakers and simultaneous panel discussion on Zoom, connecting subjects from the community level impacts of synthetic nitrogen usage in fiber systems, to deconstructing the issue of piece rate payments for garment workers, with a wide reaching international audience from diverse professional backgrounds
- Issued Symposium tickets for 619 participants, which equates to a three-fold increase in participation from all prior year's ticket sales. Retained price points of tickets \$20 for students, fixed income, and veterans and \$40 tickets general admission.

- Fibershed staff engaged in a race, equity, and inclusion training for 6-months with Teju Adisa-Farrar; outcomes from the training include weaving our collective learnings into each of Fibershed's program areas (this process is in various states of process specific to each program area)
- A cohort of Fibershed producer members met 4 times with Teju Adisa-Farrar to explore the intersections of race and equity within the context of current day land ownership and stewardship. The cohort developed a strategic plan that will be operationalized throughout the producer network in 2021



Education

BY JESS DANIELS

THIS YEAR's educational content was undergirded by an adaptive communications strategy with a foundation of planning and outreach tools. We utilized an integrated editorial calendar to coordinate across programs, projects, and community initiatives. As the shelter in place and "safer at home" guidelines emerged, we expanded our digital outreach and engagement tools, creating Instagram Live sessions, Zoom-based curricula, infographics and data visualizations, and updated newsletter content strategies. We developed and utilized a series of templates for shareable graphics, project launch communications planning, and partnership engagement. To better reflect the scope, impact, and structure of our work, we comprehensively assessed website engagement and have initiated updates, with a suite of new pages, a rolling refresh of how core work is presented, and added functionality with plugins for donations and newsletter subscriptions.

In spite of the pandemic, Fibershed's calendar of educational presentations maintained a steady pace and wide range of stakeholders. We engaged

more than 2,900 attendees of public panel discussions, conference presentations, and audience-specific talks. Fibershed shared information about Climate Beneficial™ fiber systems, regional manufacturing, textile flow mapping, and more, with sustainability teams at global brands like Gap, Banana Republic, and Guess Jeans, at stakeholder-specific events like the California Resource Recovery Conference, Virtu-Wool Conference, Healthy Soils and Healthy Profits UC Extension webinar, the De Young Museum, along with design schools and community groups.

Healthy Soils for Healthy Profits

Rebecca Burgess, Executive Director, Fibershed



"I just wanted to say thanks so much for joining us today, it was such a privilege to have you and to share your work and vision with the group. We've been getting lots really lovely notes from attendees about how much they learned and how much they enjoyed the space, and that's thanks to you and Elizabeth!"

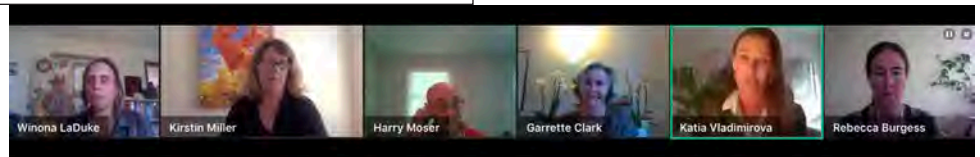
– AROA FERNANDEZ ALVAREZ
CO-FOUNDER, TRACE COLLECTIVE

"I'm so glad you spoke at CRRA [CA Resource Recovery Association Conference: Circular Textiles Panel]!! It was a great presentation and panel. Thank you for sharing about labor rights in the US."

– JEANNIE PHAM
PROGRAM SERVICES SPECIALIST AT
STOPWASTE ALAMEDA COUNTY

"I have attended the monthly speaker series for years and this was the best presentation to date."

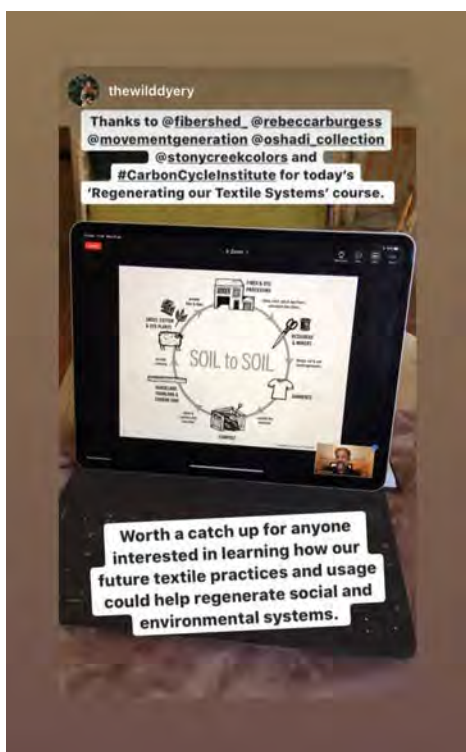
– JOHN HENRY WELLS, ATTENDEE AT
THE DE YOUNG MUSEUM LECTURE



WHERE DO COMMUNITY SOLUTIONS FIT IN?

- 80% of carbon footprint of clothes occurs at the production phase, 20% is the contribution of the consumers¹
- Actions to improve textile economy²:
 1. phase out substances of concern and microfibers (e.g. local natural dyeing practices)
 2. effectively use resources and move to renewable inputs (e.g. in textile production)
 3. radically improve recycling (e.g. zero-waste design, new fibre recycling techniques)
 4. shorten the supply chain (local production and consumption)
 5. increase utilization of clothes

Mistra Future Fashion (2019). Environmental assessment of Swedish clothing consumption – six garments, sustainable futures. ISBN: 978-91-89049-05-5.
McArthur Foundation (2017). A New Textiles Economy: Redesigning Fashion's Future. Report.



Regenerating Our Textile Systems Online Course

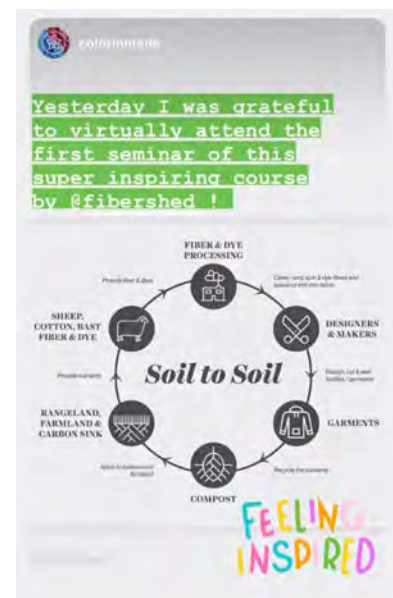
THIS SPRING, we shifted gears from in-the-field education to a free and open virtual course offering, called Regenerating Our Textile Systems (fibershed.org/programs/education/regenerating-our-textile-systems/). Over 1,300 people signed up for the seasonal sessions, which brought together an array of speakers for original curricula on key topics designed to teach how we can meet urgent climate goals through regenerating relationships between production and consumption:

Session 1: Defining Regeneration for Fiber & Textile Systems, with:

- Dr. Jeff Creque, Director of Rangeland and Agroecosystem Management at the Carbon Cycle Institute, on the Earth's Carbon Cycle and Earth's Energy Battery
- Gopal Dayaneni, MG Planning Committee at Movement Generation, on how the Exploitation of People is at the Root of Exploitation of Natural Resources
- Sarah Bellos, founder, and CEO of Stony Creek Colors
- Nishanth Chopra, founder of Oshadi Studio and organizer of the Prakriti Fibershed Affiliate

Session 2: Designing for True Circularity and Biological Systems, with:

- Beth Rattner, Executive Director, Biomimicry Institute
- Megan Schuknecht, Director of Design Challenges, Biomimicry Institute
- Diana Lin, Ph.D., Senior Scientist, San Francisco Estuary Institute
- Margot Lyons, Manager, Production + Sustainability, Coyuchi
- Kristy Caylor, CEO, For Days



Session 3: Deepening Impact Assessments toward Social and Climate Goals, with:

- Dr. Marcia DeLonge, Research Director and Senior Scientist in the Food & Environment Program at Union of Concerned Scientists
- Paige Stanley, Doctoral Researcher at UC Berkeley Department of Environmental Science Policy and Management
- Annie Shaw, Outreach Coordinator at the Garment Worker Center
- Teresa Garcia, Garment Worker Center Member





Soil to Soil Podcast

EACH EPISODE of the Soil to Soil podcast focuses on a facet of how and why the Fibershed community is cultivating fiber and dye systems that build soil and protect the health of our biosphere. This season has covered a range of topics and brought forth six fresh focal points. At the time of writing, the podcast has reached over 16,186 total listens and downloads across all episodes, and so far this season, episode 7 featuring Dr. Christine Jones is the most listened, with 900 listens.

Ep. 7: Why Soil is a Living Being, with Dr. Christine Jones (bit.ly/FibershedEp7)

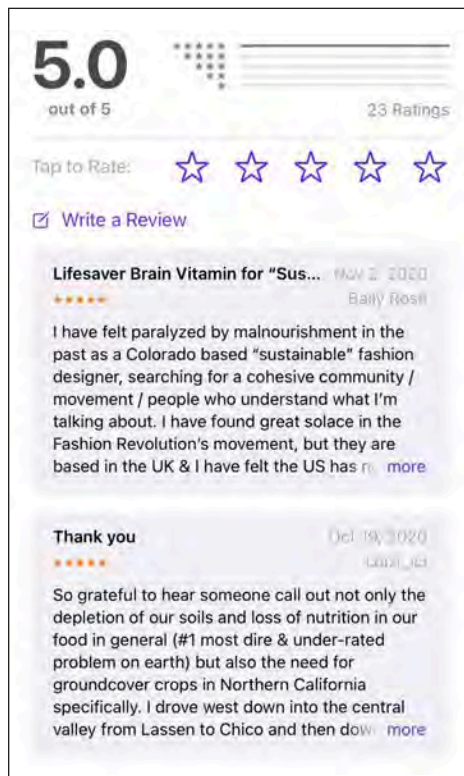
Ep. 8: How Can Fibersheds Shape Alternative Futures? with Teju Adisa-Farrar (bit.ly/FibershedEp8)

Ep. 9: How Clothing Can Restore Climate and Community, with Rebecca Burgess (bit.ly/FibershedEp9)

Ep. 10: Why Regenerative Fiber Systems Are Rooted in Relationships with Place, with A-Dae Romero-Briones (bit.ly/FibershedEp10)

Ep. 11: Can mending create a cultural shift? with Sonya and Nina Montenegro (bit.ly/FibershedEp11)

Ep. 12: What Would It Take to Make Our Clothing Regionally? with Adrian Rodrigues and Nicholas Wenner



"Thank you for keeping us all so informed. Each episode is fascinating"

– CARLY, PODCAST LISTENER



Bridging Material Culture and Agroecology: The Fiber Visions Project

BY NICHOLAS WENNER

FOR THIS PROJECT, we visualized the annual agroecological cycles for several fibers, tied them to place, and connected them to physical examples of bioregional textiles, supporting the education of policy makers, students, brands, and investors about how Fibershed's soil-to-soil visions for local textiles look in practice. We produced three sets of graphics and textiles for each of the main fiber types in our region: wool, cotton, and dogbane (a native bast fiber).

Informed by interviews with local farmers, soil scientists, and indigenous leaders, we worked with illustrator Amanda Coen to develop a set of graphics for each fiber. In the cotton and wool graphics, we envision ambitious but realistic annual cycles for the regenerative production of each fiber based on existing practices. For dogbane, rather than specifically encouraging the development of a commercial industry, we look to Indigenous relationships with the plant for inspiration and ask, "What would it look like to honor the principles that underlie Indigenous stewardship and use of dogbane in all the relationships that meet our material needs?" Each set of graphics includes "zooms" that highlight key points, and we use these to connect to other resources for a deeper dive. The graphics include depictions of manufacturing processes as well as agroecological processes, as we aimed to provide a vision for the harmonious integration of these essential components of the soil-to-soil cycle.

Alongside the graphics, we highlighted three place-based textiles to bridge between real-life material culture and the visions we present. We developed the wool textile using wool grown by Kaos Sheep Outfit, spun by Mendocino Wool and Fiber Inc., and dyed and woven by Sandy Fisher Woven.

“That was really moving, inspiring and informative. Thank you to everyone involved in the project.”

– DEBORAH BARKER

“Nick, I will miss your comprehensive and beautifully illustrated presentations. Wish there was a new episode every day :-)”

– MARIE

Kaos Sheep Outfit raised the wool using the practices we present in the graphic, and the local manufacturers exemplify on a small scale the manufacturing vision we present. While we originally intended to develop a cotton textile using fiber grown with regenerative practices on California farms, supply network disruptions due to COVID-19 prevented us from doing so. Instead, we sourced fabric from California Cloth Foundry to represent a key step in the direction of the larger vision. This fabric was grown using Sustainable Cotton Initiative Cleaner Cotton from the San Joaquin Valley, spun in North Carolina, and knit and finished in California. For dogbane, we commissioned local indigenous craftsman Redbird (also known as Edward Willie) to present a traditional dogbane item he had made and documented this during an interview and photoshoot at a local dogbane patch.

We produced videos for each fiber that present the associated graphics and textiles and include recorded interviews with producers, further bridging between vision and reality. We released these materials in three presentations at Fibershed’s 2020 Symposium and posted them online on the following pages:

Overview: fibershed.org/programs/fiber-systems-research/fiber-visions

Dogbane: fibershed.org/programs/fiber-systems-research/fiber-visions/dogbane

Cotton: fibershed.org/programs/fiber-systems-research/fiber-visions/cotton

Wool: fibershed.org/programs/fiber-systems-research/fiber-visions/wool

There, you can see images of the textiles, review the graphics, watch the videos, and link to further resources.



Redbird, also known as Edward Willie, a native Pomo, Walaeki, Wintu, and Paiute teacher, visits a dogbane patch in Sonoma County that has been tended continuously by indigenous peoples for thousands of years and shares a traditional item crafted from dogbane originating in that same patch. (Photo by Paige Green)



Locally processed textiles from wool, cotton, and dogbane were developed and documented to bridge between real-life material culture and the visions we present. (Photo by Paige Green)



From top: cotton, dogbane and wool. Versions of these graphics were paired with photos of locally-produced textiles and shared via presentations, on Fibershed's website, and through social media to tie visions of soil-to-soil cycles with tangible examples of bioregional textiles. (Illustrations by Amanda Silvana Coen, www.amandacoen.com)

Fibershed Learning Center

BY REBECCA BURGESS

IN MARCH OF 2020, after 10 years working virtually, our organization has found a home to support hands-on, sensory rich educational opportunities for the general public that directly showcase all aspects of our soil-to-soil value system.

The Learning Center, as we are fondly calling it, is in the Tomales Bay Watershed within Coast Miwok Territory—the home region of Fibershed Board Member, Nick Tipon. The Center is situated at the front end of Black Mountain Ranch and protected by a Marin Agricultural Trust easement. The 2,000-acre land base is one that hosts several well loved, food focused agricultural projects, including Stemple Creek Ranch, Little Wing Farm, and Table Top Farm.

The Learning Center is both a physical indoor location and a small farm site. We recently constructed protective fencing on a quarter acre, designed and executed on our spring-fed, gravity-based irrigation systems, and planted over 1,000 indigo plants, several hundred dye producing flowers (and pollinator forage), and a range of heirloom vegetables for the local food bank. All indigo was harvested this summer and early autumn and extracted into pigment for use for future artist in residence programs. Textile grade flax and cover crop seed has been planted this autumn for a spring seed and fiber harvest.

This autumn, we began planting over 4,000 native perennial bunchgrass plugs and forbs to support the generation of a seed stock that can contribute to grassland restoration more broadly at the ranch. The land tending goals have just begun and include re-establishment of native sedge, willow, dogbane, and hazel species to directly support the gathering needs of the local tribe. We are planning to include textile-composting demonstrations of natural fiber clothing (clothing that is too



tattered for mending). All of these efforts combined will allow us to demonstrate what a landscape-level fiber, dye, and food system looks like, and how it can provide material for in-person classes and internships.

The indoor space for our education programs and library of regional textile materials is a home site. We have painted walls, built shelves, installed a new natural dye sink and several stoves, and we are transforming the home into a location where educators (from near and far) can come to work and share their land based skills with adults and children alike. The indoor space has meeting rooms for our team and is spacious enough to also serve the needs of other local organizations and steering committees to use for discussions specific to agriculture, climate change, environmental justice, fiber and food system sovereignty, land access, and regional economic development.

This year, due to COVID-19, our focus has been on providing online hands-on demonstrations that are streamed live and recorded for future use by all participants. You can join those demonstrations and classes via the Fibershed Learning Center website: fibershed.org/programs/education/learningcenter/ and find on-demand videos of past classes on Fibershed's Vimeo On Demand channel: vimeo.com/fibershed/vod_pages



From top: Tending the Japanese indigo in the Learning Center pigment garden in late summer; making inks with indigo pigment extracted from the indigo grown on site; Sandy Fisher and Durl Van Alstyne of Chico Flax demonstrate flax processing during one of the online classes streaming from the Learning Center (Photos by Dustin Kahn)

2020 Wool & Fine Fiber Symposium

BY REBECCA BURGESS

FROM NOVEMBER 12 to November 14 our team hosted our ninth annual Symposium in a COVID-19 safe manner. Our three-day virtual event, “Healthy Soil & Sea: Changing the Flow of Fashion,” focused on a number of context-building presentations that were designed to shape and advance a collective, holistic understanding of the current status and potential future of our regional soil-to-skin systems. Hosting the Symposium on Zoom allowed us to welcome participants from a range of geographies. According to our survey, attendee representation was roughly 31% Northern California Fibershed; 25% Western United States; 18% from International locations; 14.5% Eastern United States; 11% Midwestern United States. The Symposium audience also brought together a multi-disciplinary community who self-identified in our survey as working in one or more of the following focus areas: fiber arts (56%); fashion industry (31%); textile design (22%); intensively managed agriculture (24%); teachers (20%); professors (6%); students (3%); business management (13.5%); supply chain stakeholders (12%); philanthropy (4.5%).

Below is the public facing description of our Symposium (bit.ly/Fibershed2020):

From the landscape to the seascape, the largest active carbon pools on planet earth are where we humans work, and where the impacts of our lives are made evident. When textiles are drawn from fossil carbon reserves and spun and sewn into plastic clothing, we see ripple effects from climate destabilization to micro-plastic pollution. Extractive industries undermine place-based and indigenous fiber and dye traditions—

from overproduction that floods markets and exploits garment workers to the unmanageable excesses of textile waste that negatively impact our soil, sea and air.

Within land-based fiber and dye systems, we see living examples of solutions that restore soil health and change the course of fashion and agriculture’s impact on soil systems and waterways. Reconnecting to bioregional models of production allow us to focus our attention on the most site specific ways to protect and enhance marine and soil ecosystems, re-establish manufacturing systems that serve land stewardship, while growing our collective fiber and dye sovereignty.

Topics covered included:

- How the modern wardrobe is damaging life in the soil and sea
- How natural fiber and food systems can be managed to enhance soil and watershed health, including on-the-ground examples from Northern California and Fibershed Affiliates
- How Indigenous fiber system stewardship of landscapes and Black-centered fiber traditions have existed and currently exist to enhance ecological function and health
- What it would look like to meet our clothing needs and provide fair compensation to all who contribute to fiber, fabric, and finished goods

What participants had to say overall, from a survey of over 110 individual responses:

- 95% rated the event as excellent or very good
- 97% of respondents described the Symposium presentation and panel content as very helpful or extremely helpful

What key learnings participants are leaving with:

“I’m leaving with a lot of things, but one that I didn’t know I would find is hope. The problems we are facing are big—the ocean is polluted, our soil is not healthy and garment workers are overworked and underpaid. These problems often feel insurmountable, too big to tackle and it’s easy to feel overwhelmed. During this symposium I learned that dead zones can heal, that using regenerative practices can heal our soil and that there are organizations and designers who are advocating for better pay and working conditions for garment workers. We need to work together, as a community to address these problems. We cannot do this individually, we need to work together and we need to start now.” – BRIANNA

“A wealth of information, that I’ve yet to distill down. The most memorable moments were Dr. Johnson, on “How do we welcome people in?” Louie Garcia sharing the core values of the Pueblo people and the relationship of clouds, cotton and ancestors. Teju’s Black Fiber Systems panel: find the BIPOC doing the work already and support them. How much of sustainability is appropriated from Indigenous practices. The blatant disregard Ross has for it’s employees’ wellbeing.” – KELLY

"It's the same thing I love about Fibershed: the way you always find a way to unite themes of looking out for the health of people with that of the planet; and also, continuously finding ways to include MORE people, help more, get access to more people, etc."

– SYMPOSIUM ATTENDEE

"It was so well-rounded, so many different perspectives, so much actionable information. Very moving personal stories. Very inspiring. It was very well executed via Zoom and I like being able to chat with attendees around the world."


– SYMPOSIUM ATTENDEE



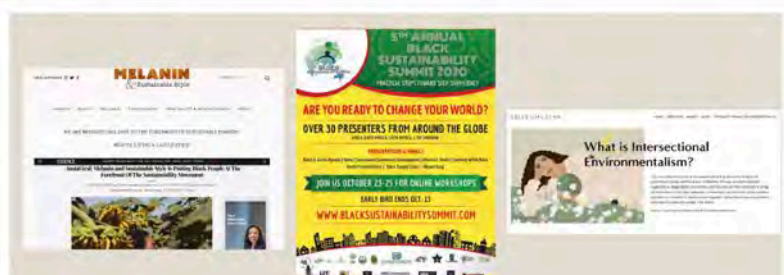
Indian Rule #4 used in Fred's basket

- #1 Desire
- #2 Definition
- #3 Determination
- #4 Detach

Prayer for good thoughts.
Look at the bottom of the basket, now your dream comes true.
Ability to see the future.
Identify the pattern




Black sustainability spaces



How Soil Health Helps the Ocean

- 1) Long term carbon storage in the soil improves soil health and can help slow or reverse changes in ocean temperature and acidification.
- 2) Improving soil health increases infiltration rates and results in less runoff. Reduced runoff can mean less contaminants (fertilizer, plastic and pesticide) and improved water quality entering the ocean.



Change the paradigm

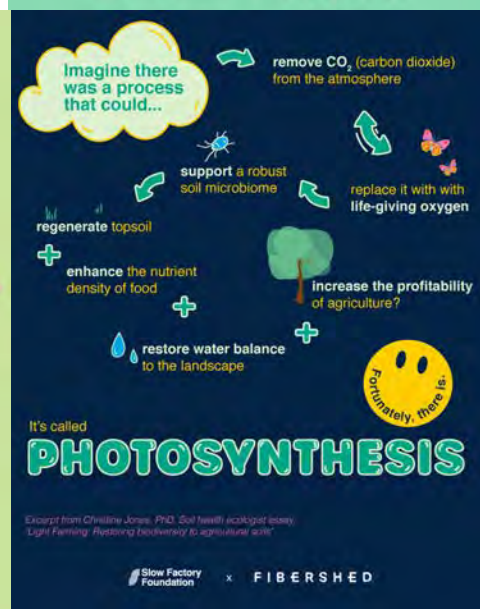
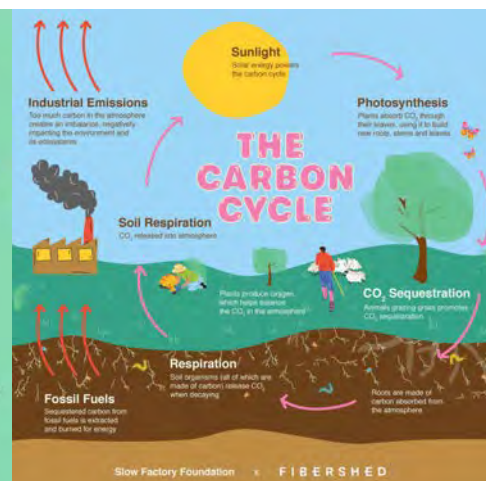
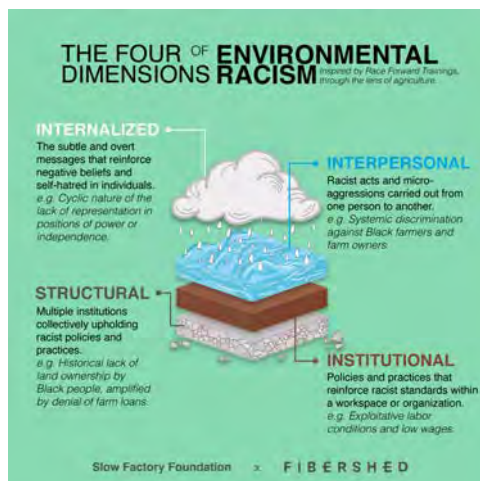
Bare naked, dead, thirsty, sterile Diverse, enlivened, resilient, nutrient dense



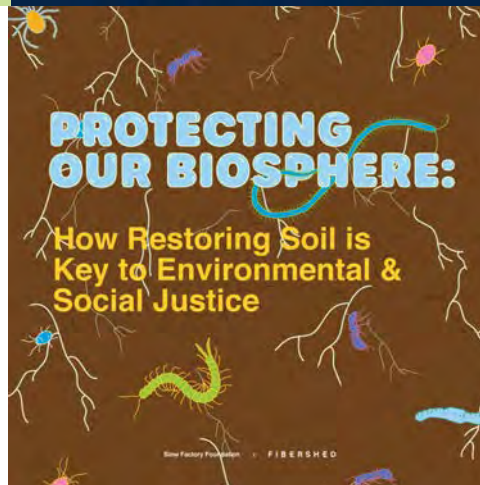
The 2020 Wool & Fine Fiber Symposium was a three-day virtual gathering with 3 spotlight speakers, 5 panel discussions, a virtual marketplace, skill-based moderated Roundtables, and more.

Climate Beneficial™ Systems Education with Slow Factory

TO EXPAND CONNECTIVITY with our Climate Beneficial program and distill key concepts from science to social impact, we collaborated with the team at Slow Factory Foundation. Fibershed provided Slow Factory with a resource library of materials, a series of scoping and stakeholder interviews, and insights from our communications strategy.



Slow Factory developed a plan for a six-part campaign that flowed from high level intersectional education to detailed scientific processes. We developed and refined the framing, written content, and references, and Slow Factory's information design and social media expertise combined to create impactful graphics and informative slides that were shared widely, within Fibershed's digital community and with Slow Factory's 200,000+ online following. Together, the series cultivated more than 50,000 engagements on Instagram alone, with each informative graphic being saved and shared hundreds of times for a ripple effect across communities.



Fibershed and Slow Factory Foundation created a series of illustrated graphics to distill core messaging on Climate Beneficial, soil-to-soil fiber systems, and interconnected issues.

Design School Collaborations

BY HEATHER PODOLL

COMPLETED:

- Launched the 5th round of the Fibershed Design Challenge for students at Fashion Institute of Design and Merchandising, SF
- Provided an in-person presentation at Santa Rosa Junior College on regional Climate Beneficial textile systems and the California Closet Survey for Climate and Ocean Health
- Offered 5 virtual class presentations to Bay Area fashion design school classes
- Facilitated a new semester-long Fibershed Field School at Emily Carr University in Vancouver, Canada

DESPITE SIGNIFICANT challenges for our design school partners who had to shift their courses to online models for most of this year, we were able to maintain ongoing programmatic relationships while also expanding and deepening relationships with new and emerging educational partners.

FIDM (FASHION INSTITUTE OF DESIGN AND MERCHANDISING, SAN FRANCISCO)

The Fibershed Design Challenge for FIDM students continued this year, launching its fifth round of zero waste design submissions, as finished garments from two previous rounds were completed using Climate Beneficial Wool (CBW) fabric. Following a Fibershed presentation on regional textile sourcing and Climate Beneficial textiles to FIDM's Fashion Collection Design class in November, all students in the class received fabric swatches of this year's Climate Beneficial Wool Community Supported Cloth made with undyed, naturally colored wool, and each will be designing a zero waste garment for the CBW fabric.



"I am greatly honored to be part of Fibershed's Design Challenge. The opportunity to create a zero waste garment using Fibershed's Climate Beneficial Wool fabric ... means so much to me as budding designer who is invested in creating positive environmental change that is long-lasting and sustainable."

– SARAH STOWELL, FIDM 2020 FASHION DESIGN GRADUATE AND FIBERSHED DESIGN CHALLENGE AWARDEE

Zero Waste Jumpsuit by FIDM Fashion Design student Sarah Stowell, honored in the 2020 Fibershed Design Challenge and recipient of Climate Beneficial Wool fabric for prototype construction (Photo courtesy of Sarah Stowell)



FIDM student Cortney Sumpter's Fibershed Design Challenge Tie Wrap garment, made with Fibershed verified Climate Beneficial Wool fabric, was dyed with pomegranate and eucalyptus leaves sourced from the grounds of her family's cotton farm in Dos Palos, CA. (Photos by Cortney Sumpter)

Rebecca Burgess with former Santa Rosa Junior College Fashion Studies Program Coordinator Lyra Bobo (left) and current Fashion Studies Program Coordinator Emily Melville (right) at a community presentation in early March (Photo by Kirby Bobo)



“Thank you for creating a rich learning environment for our students. We really are all in awe of what Fibershed is doing. It’s a great inspiration to the students.”

-LYNDA GROSE, ECOLOGIES OF FASHION DEPARTMENT CHAIR OF CCA FASHION DESIGN DEPARTMENT AND CO-FOUNDER OF THE UNION OF CONCERNED FASHION RESEARCHERS

“That was amazing, Rebecca. I cannot say enough... We hope you will keep returning to the ADAM program to deliver that vital and important message.”

- DEREK PIAZZA, APPAREL DESIGN AND MERCHANDISING (ADAM) COLLEGE OF ALAMEDA; FASHION DESIGN INSTRUCTOR; FABLAB ADVISORY BOARD; TEXTILE ARTS COUNCIL

SANTA ROSA JUNIOR COLLEGE (SRJC) FASHION STUDIES PROGRAM

The SRJC Fashion Studies Program created a professionally edited video based on the presentation that Rebecca Burgess gave to the SRJC community in early March 2020. The video promotes core themes of Fibershed’s work along with references to the California Closet Survey for Climate and Ocean Health that had just launched at the time of the presentation. A section of the video describing sustainability initiatives within the SRJC Fashion Studies Program was highlighted at the 2020 Fibershed Symposium. The full video can be viewed here: youtu.be/2iYIUC_ZdnA.

CALIFORNIA COLLEGE OF THE ARTS (CCA)

Working with the California College of the Arts this year included providing two virtual presentations to students enrolled in the Ecologies of Fashion course, as well as a presentation to the entire student body in partnership with colleague Dominique Drakeford who tactfully navigated the issues of marketing, education and policy through the lens of colonization. CCA is developing an intersectional understanding amongst staff and students specific to the issues of environmental justice, climate, and the fashion industry; the school continues to build on their commitment to being at the vanguard of providing students with a holistic understanding of the impacts of the industries that they are entering.

COLLEGE OF ALAMEDA

Working with College of Alameda in 2020 included two presentations to the Apparel Design and Merchandising program. Students in the program span a variety of age groups, ethnicities and socio-economic backgrounds. The school is a ripe location for working with students whose life experience

has centered their perspective to deeply understand and empathize with those in the textile industry whose daily life includes synthetic chemical exposures and economic exploitation. The students are excited to continue to work with Fibershed and are keen to see economic opportunity brought to the region through a healthy and fair textile economy.

EMILY CARR UNIVERSITY (VANCOUVER, CANADA)

Executive Director Rebecca Burgess facilitated a new Fibershed Field School at Emily Carr University in Vancouver Canada. Between September and December, Field School participants investigated ecologically sensitive and economically viable methods of local textile production in three mentorship cohorts focusing on transparent practices around textile production, regenerative agriculture and Indigenous ways of knowing. Students were taught hands-on methods of tannin based salmon leather processing, fermentation indigo, and sheep care 101. The students toured a weaving mill and were also taught how to work with nettle, dogbane and milkweed fibers. Virtual classes were held after each workshop, utilizing a Socratic learning framework based on inquiry and self-reflection. Students utilized the *Fibershed* book published by Chelsea Green as a textbook throughout their semester. Assigned readings and subsequent facilitated conversations supported students to make connections between the text and the sensory rich trainings carried out in the field.

Due to the virtual nature of this year’s Fibershed Symposium, we were able to offer scholarships for 12 students from each of our partner schools to attend the online 2020 Fibershed Symposium.



Students from the Emily Carr University Fibreshed Field School take a workshop at Star Hoerauf's farm on Vancouver Island. Star was formally a member of the Northern California Fibershed while living in Nicasio, California. Students learned the ins and outs of vegetable and medicinal plant gardening, sheep care 101, and explored fiber quality through looking at farm yarns and hand knit textiles that Star has produced. (Photos courtesy of Emily Carr University)

Communications

BY JESS DANIELS

FIBERSHED creates original educational content to expand awareness and accessibility of the work of our community and peer communities to grow regional and Climate Beneficial fiber and dye systems. In this unprecedented year, an adaptive communications strategy was essential to supporting emerging, ongoing, and responsive work.

Here is a look at milestones from our content calendar shared publicly across our own channels, partnerships, and media:

WINTER SEASONAL CONTENT:

Illuminated core programming and thought leadership including:

- Why the “soil to soil” framework is a true model of circular fashion
- Connections between the legacy of Dr. Martin Luther King Jr. and contributions of sustainability leadership by African-American leaders, researchers, and farmers, with essential learnings from Dominique Drakeford’s keynote presentation from the 2019 Symposium
- What we learned about soil health in a field day of “land listener” activities by the Rancher 2 Rancher educators
- Foundational education on plant fibers beyond hemp and flax, with a look at three native plants: milkweed, nettle, dogbane, and the characteristics of bast fibers
- Why we formed the Regional Fiber Manufacturing Initiative and how it works, with dedicated website, social media, and email newsletter features, and coverage in Rivet magazine and at the Study Hall Summit New York Times: Climate Positivity at Scale



Can integrated sheep-vineyard (ISV) systems help mitigate climate change and improve soil functioning?



fibershed_ "In order for us to collectively implement restorative and regenerative practices while building collaborative solutions in the agriculture and fiber sector we have to understand colonial systems theory... by disrupting traditional ways of thinking about sustainability we can enhance and further develop systems focused on what I like to call AIRE: Agency, Inclusivity, Representation, and Equity" -- Dominique Drakeford, whose presentation at the #2019WoolSymposium feels so resonant for reflecting on the legacy of Dr. Martin Luther King Jr., the roots of ongoing injustice, and the instrumental contributions to sustainability by African-American leaders, researchers, and farmers. We invite you to join us in

- Press features including: a Press Democrat section-leading story; Climate One Podcast; Bay Area Bountiful video segment with Fibershed members and staff

Boosted the work of our community:

- Advertised Hopland Shearing School opportunities
- Highlighted the inspiring efforts of the Fibershed Affiliate Network
- Showcased virtual visits to Northern California Fibershed producer members with blog articles featuring Judi Pettite of Biohue and handmade clothing artisan Carol Lee Shanks

Rooted in seasonal soil-to-soil activities and updates including:

- How grazing sheep in vineyards boosts soil organic carbon, as measured by Kelsey Brewer at UC Davis Gaudin Lab
- Why multi-species cover crops are an asset to cotton production in the San Joaquin Valley
- How compost application on rangeland sequesters carbon, improves water-holding capacity, and is being adopted across many states
- What the annual agricultural cycle looks like for wool, starting with lambing season

SPRING SEASONAL CONTENT:

Illuminated core programming and thought leadership including:

- How California's Healthy Soils Program has supported carbon farming practices on fiber and dye landscapes
- What Climate Beneficial fashion can look like, with the launch of the Cold Weather Collection from Elizabeth Suzann
- A strategic and evolving response to COVID-19 including blog articles promoting resources, activities,



and synthesizing impacts to the fashion industry, with an Instagram Live discussion to connect with our community while staying at home:

- Staying Connected and Supporting Our Fibershed Amid Coronavirus (fibershed.org/2020/03/23/staying-connected-and-supporting-our-fibershed-amid-coronavirus/)
- 5 Ways You Can Strengthen Our Fibershed While Sheltering in Place (fibershed.org/2020/03/26/5-ways-you-can-strengthen-our-fibershed-while-sheltering-in-place/)
- Disease as a Driver For Change: Reflections Through the Lens of Ecology (fibershed.org/2020/03/31/disease-as-a-driver-for-change-reflections-through-the-lens-of-ecology/)

- Why we need a Closet Survey for Climate & Ocean Health, and how all Californians can take part, including creating a short video on the data entry process, promotion in our e-mail newsletter, and partner toolkits to spread the word to peer organizations
- How local fiber and dye systems connect to the Fashion Revolution movement, with engaging virtual activities:
 - The “Less is More” Wardrobe: Sustainable Strategies Bingo infographic, our social media post with the widest reach this year, expanding beyond our audience to a total of 14,584 Instagram accounts, 48% of whom were outside the Fibershed follower list

Disease as a Driver For Change: Reflections Through the Lens of Ecology

Posted on March 31, 2020 by Fibershed



FIBERSHED

Mending Techniques + Patchwork Pouch

with Heidi Iverson
@honeyfolkclothing



Virtual Demonstration



THE WEEK

RUTH TERRY

Mending: An ancient craft for modern times

With the fast-fashion machine on hiatus during the pandemic, could this be mending's big moment?



fibershed... Did you know that according to the @fao smallholder farmers are responsible for feeding most of the world? While we are all working to keep each other healthy by practicing social distancing, we need to stay connected to the working landscapes, the businesses, and the artists that connect us from soil to skin. Much of our Northern California Fibershed is currently sheltering in place, and we are grateful for the agricultural community supporting our community's needs. Though it varies by county, most farmer's markets are still open and offering fresh food. This Sunday, @summersacetalow will host the @fibershedmarketplace pop-up at the Tamara's Corner Market in...

VOGUE

FASHION BEAUTY CULTURE LIVING RUNWAY SHOPPING VIDEO

Regenerative Agriculture Can Change the Fashion Industry—And the World. But What Is It?



BY EMILY FARINA

- Two free virtual workshops: mending skills and patchwork bag tutorial with Heidi Iverson, and mapping color with eco-printing on Climate Beneficial Wool with Cory Gunter Brown
- A fundraiser workshop on natural dyeing with medicinal plants with Deepa Natarajan, to donate masks to the Navajo Nation: in partnership with California Cloth Foundry, a donation by Solminer Wine Co., and a bulk mask purchase by Fibershed, more than 640 masks were donated to the Chinle Chapter of the Navajo Nation
- A free three-part online course offering, Regenerating Our Textile Systems, launched to our audience and shared by partners and social media influencers, with promotional spotlights on speakers, attendee take-aways, and key learnings

- Press features including: Vogue Magazine, Eco-Age, WWD Digital Daily, The Week

Boosted the work of our community:

- Why local farmers and regional supply chains are key to food and fiber resilience in the face of a globally disruptive pandemic
- How community members can support Northern California Fibershed producer members, with a “Shelter in your Shed” eight-part series spotlighting producer activities and offerings, including 2 Instagram Live virtual tours of producer landscapes with Chico Flax and Full Circle Wool (with more than 175 viewers each)
- Highlighted virtual visits to Fibershed producer members with a blog article featuring Mary Diaz of Gather the Universe

Rooted in seasonal soil-to-soil activities and updates including:

- Spring renewal with wardrobe mending
- How targeted grazing offers essential ecological benefits for vineyard management and fuel load reduction
- Why farmers and farmworkers are essential workers in need of pandemic relief
- How Earth Day activism needs to address the fiber content of our wardrobes in order to ameliorate plastic pollution

SUMMER SEASONAL CONTENT:

Illuminated core programming and thought leadership including:

- How Climate Beneficial fiber systems, from carbon farming to regional economies, are connected to social and environmental justice, with a 6-week series of original illustrations and infographics created in partnership with Slow Factory Foundation
- Ways that Fibershed communities can Amplify Melanated Voices and affirm that Black Lives Matter, with a dedicated content strategy plan for uplifting existing educational resources, highlighting Black community leaders in soil to soil systems, and sharing local opportunities for engagement
- Why cooperative manufacturing businesses and networks are inspiring and practical examples of growing equitable, regional economies, with a blog article about the Regional Fiber Manufacturing Initiative that led to strengthening a strategic partnership with the Democracy at Work Institute
- A virtual opening of the Fibershed Learning Center, with a purpose-centered communications and outreach strategy across our channels and with partners
- Supporting the first virtual pop-up with the Fibershed Marketplace, with social media and email newsletter promotions and an Instagram Live preview of selected products from the Northern California Fibershed Agricultural Cooperative
- What cotton production looks like in Fibershed Affiliate communities, with three original articles organized and distributed on our blog and outreach channels:
 - Cotton in Community: Reconnecting to Traditional Indian Farming Practices in the Prakriti Fibershed

- Tula: A Return to India's Regenerative Cotton Roots
- Cotton in Community: Field to Fashion with Acadian Brown Cotton

- Why it's vital to question the role of biosynthetics in regenerative fashion, as described in an original article written as a complement to the Biomimicry Institute's Nature of Fashion report
- How we can unlock local clothing industries with strategic manufacturing investments and development, as explained in an original blog article showcasing the Regional Fiber Manufacturing Initiative's Ecosystem Mapping efforts
- Press features including The Globe and Mail, Atmos magazine, Forbes, CNBC, Sourcing Journal Radio, CNN Style

Boosted the work of our community:

- Shared the work of Fibershed producer members with blog interviews of Milk & Honey 1860 and Fortunate Farm
- Featured field notes, in the form of a blog article, from the One Acre Exchange project's expansion to growing 50 acres of hemp in North Carolina
- Highlighted seasonal snapshots from the Rezolana Institute's hemp casita project, and the St. Francis Homelessness Challenge hemp dwelling development

Rooted in seasonal soil-to-soil activities and updates including:

- What local indigo production and processing looks like, from the archives of the True Blue Project and indigo reports to the current Learning Center garden

Cotton in Community: Field to Fashion with Acadian Brown Cotton

Posted on September 4, 2020 by Fibershed

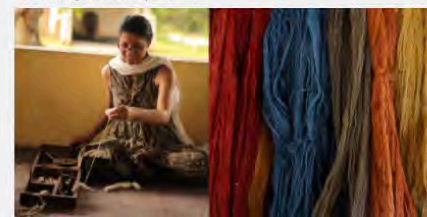


Written by Lauren Odom and with photography as noted This rich intertwined story of an heirloom seed, an age-old tradition, and a bright future all began when Sharon Gordon Donnan, an experienced filmmaker and textile conservator, spotted an old blanket while browsing at an antique sale in Washington, Louisiana. It was no ordinary blanket because [...]

[Read More](#)

Tula: A Return to India's Regenerative Cotton Roots

Posted on August 14, 2020 by Fibershed

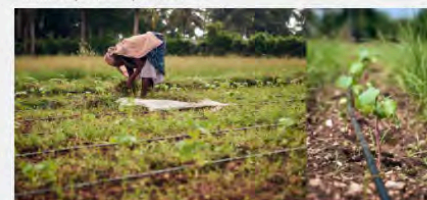


As part of our series on cotton in community, we are honored to share this article produced by Harpreet Singh, exploring the connections between cotton, colonialism, cloth production, and community-based economies. As Harpreet writes, tula is a Sanskrit word that means cotton and also means balance or equilibrium. The vision and approach of this work [...]

[Read More](#)

Cotton in Community: Reconnecting to Traditional Indian Farming Practices in the Prakriti Fibershed

Posted on July 29, 2020 by Fibershed



- Ways to explore seasonal skills like flax processing, indigo growing, and natural dyeing with summer flowers, with virtual classes through the Learning Center
- How hotter, drier, longer fire seasons are connected to climate change, and how Climate Beneficial agriculture can ameliorate both in tandem

What to read if you're worried about the climate crisis and your lifestyle

"Fibershed" | Rebecca Burgess | 2019

"Fibershed: Growing a Movement of Farmers, Fashion Activists, and Makers for a New Textile Economy" proposes a "farm-to-closet" regenerative vision for textiles by which material production acts as a force for good. Imagine if through the creation of clothing we could sequester carbon, improve soil health and empower farmers. "Fibershed" does that in pockets around the world.

Biosynthetics vs. Natural Fibers: What Makes a Sustainable Material Sustainable?

By Jamia Maki Class

SOURCING JOURNAL Radio

Timo Rissanen • 2nd
Associate Professor, Fashion and Textiles at University of Technology Syd...
2h •

My reading of the Biomimicry Institute 'Nature of Fashion' report was not thorough enough. Here is an excellent critique of aspects of the report focusing on 'biosynthetics', by [Rebecca Burgess](#) and [Jess Daniels](#) at [Fibershed](#). I highly recommend reading it as a companion to the report.
<https://lnkd.in/ezsQfju>

Current Fashion System

Fuels-based energy and materials start and stop in the biosphere, with very few closed loops. What exists is restricted to its own channels, with almost no universality and crossover except from the escape of toxic pollutants.

Questioning the Role of Biosynthetics in Regenerative Fashion

[fibershed.org](#)

11 • 2 Comments

Fibershed
Published by Jess Daniels (?) • July 16 •

Each year, the United States produces enough wool to create millions of sweaters and enough cotton to cut and sew billions of t-shirts — so, why is it so hard to fill our wardrobes with clothes that are grown and sewn close to home? And what about hemp or flax linen fabric, clothes, and goods?

Fibershed's Regional Fiber Manufacturing Initiative has been tirelessly researching this soil-to-skin disconnect. The first half of 2020 focused on mapping the ecosystem for the supply ... [See More](#)

Textile Manufacturing in the Western US Industrial Scale Artisanal Scale Missing

Get More Likes, Comments and Shares
When you boost this post, you'll show it to more people.

8,108 People Reached **1,196** Engagements [Boost Post](#)

[Eva N](#) [Matt Harvey](#), [Ruth Field](#) and 126 others • 5 Comments • 67 Shares

fibershed_ Reposting with permission, inspired by Melony Edwards, @ebony.by.nature sharing this photo and introduction to her journey of reclaiming farming and her emerging fiber and natural dye business, which can be supported with direct contributions via the PayPal link in her profile.

@ebony.by.nature writes:
Thank you to all the new followers and supporters, and to those who have been with me throughout my journey! Allow me to properly introduce myself. Melony Edwards @melbelle206 is a first-generation farmer whose ancestors traveled north after emancipation in the journey known as the Great Migration, for a better life away from the fields of sorrow that they had known to know. #BlackAgriculture

Liked by [mistef](#) and 793 others

fibershed_ A moment with the first indigo crop at our new space: we're pleased to share that this year we are working to open the Fibershed Learning Center, a multi-use space to demonstrate and provide hands-on connections to natural fiber and dye systems. The Learning Center will open later this year (pending public health guidance) just outside Point Reyes Station, California, on the traditional and ancestral territory of the Coast Miwok and within the historic and @malt_ag-protected Black Mountain Ranch property. Fibershed has felt the need for some time to create a grounding force that serves in our effort to enliven our community's connection to regional and regenerative fiber and dyes. We are

Liked by [soil_centric](#) and 701 others

A Gathering Place at Warner Mountain Weavers

Posted on November 19, 2020 by M.



Written & photographed by Sarah Lillegard In the northeastern corner of California, the Warner Mountains run north through Modoc County into southern Oregon. To the west of these mountains is Goose Lake, and to the east is Surprise Valley, the town of Cedarville, and a shop that bears the name of that range: Warner Mountain [...]



fibershed_ "Prescribed herbivory" 🌱
🌱 is the intentional grazing of livestock to remove, rearrange, or convert vegetation on wild lands to reduce the costs and losses associated with wildfires and to enhance the condition of forests, rangelands, and watersheds. (via a 2015 Range Management Advisory Committee document to the CA Board of Forestry co-authored by community member @brittanycolebush) Why grazing? As we are witnessing, much of the West has a high fuel load with standing dry vegetation, which can mean the difference between a low intensity fire that supports biodiversity and a high intensity fire that chars forests. Prescribed herbivory is scalable, can

👍 Liked by soil_centric and 753 others
SEPTEMBER 11

Plastic Smog

noun

"In the ocean, plastic is less like an island, and more like smog" @5Gyres

The San Francisco Bay has a higher concentration of microplastics and microparticles than most other regions around the globe, and 74% of that pollution has been identified as fibers, according to the SF Estuary Institute and 5 Gyres. Textiles are a major contributor to this "plastic smog" in the ocean.



Visions for Healthy Soil & Sea:
bit.ly/Fibershed2020

FALL AND EARLY WINTER SEASONAL CONTENT:

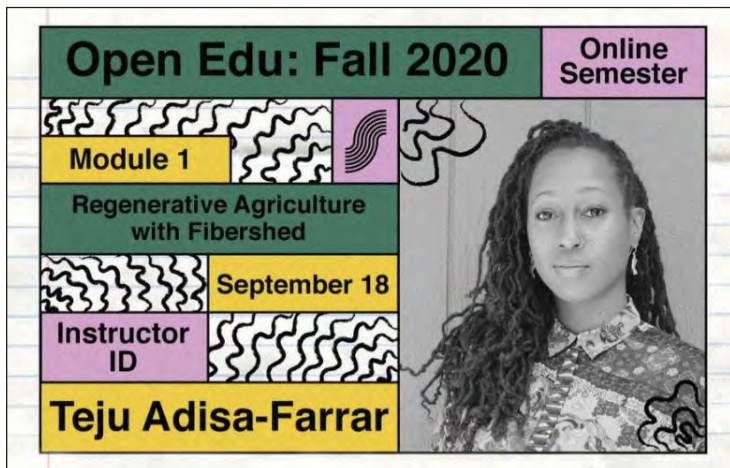
Illuminated core programming and thought leadership including:

- How Cultural Fire Management is an example of being in relationship with place and local materials, amplifying the work of Margo Robbins of the Yurok Tribe and sharing news articles, Native Californian community perspectives, and educational resources from our Symposium library across our channels
- Ways to decolonize the sustainable fashion agenda, presented by The Root podcast (consciouschatter.com/podcast/2020/09/01-s04-episode-205-the-root-1-racism-as-a-system) series by Conscious Chatter and

Melanin and Sustainable Style, with an episode sponsorship by Fibershed to support distribution of this critical educational information

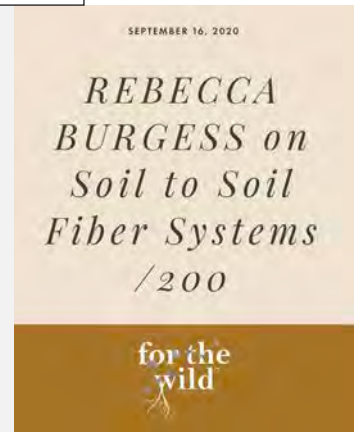
- Why Regenerative Agriculture & Local Fiber Ecosystems are key to sustainability literacy, with an online course as part of the Slow Factory Foundation Open Education (slowfactory.foundation/open-education) series, an equity-centered initiative with over 5,000 students that Fibershed sponsored and coordinated to support class instructor Teju Adisa-Farrar with guest speakers Nishanth Chopra (Prakriti Fibershed Affiliate) and Tameka Peoples (Seed2Shirt)

- How land stewardship is critical to living in our changing climate, and the potential of Climate Beneficial fiber systems to reduce the legacy load of carbon in the atmosphere by enhancing Soil Organic Carbon content
- What is at stake with consequences of biosynthetic textiles, as covered by Rachel Cernansky, sustainability editor of Vogue Business, directly rooted in Fibershed's original article, outreach, and additional resources and contacts provided for the piece
- Launched the second season of the Soil to Soil podcast
- Developed and executed strategic and educational promotion of the 2020 Wool & Fine Fiber Symposium, spotlighting the core work of speakers, creating



The Hemp Casita of Rezolana — Rising up from the Ground

Posted on October 22, 2020 by Fibershed



original infographics of key terms, commissioning an original illustration for the event, and marketing ticket sales through direct, network, and media channels (bit.ly/Fibershed2020)

- How and why to contribute directly to the Carbon Farm Seed Fund, with an end of year fundraising campaign to invite the public to participate in growing Climate Beneficial fiber economies
- Press features including: Vogue Business, Trehugger, For The Wild podcast, Morning AgClips

Boosted the work of our community:

- Highlighted harvest season of the One Acre Exchange hemp project with a blog article

- Provided virtual visits to Fibershed producer members with blog articles featuring Mendocino Wool Mill, Warner Mountain Weavers, Italia A Collection, and Owl Oak Acres
- Documented the work of the Rezolana Institute to develop a hemp casita, with a blog article and original photography
- Shared how carbon farming practices like hedgerow plantings are part of County-level strategies for climate adaptation and carbon emissions reductions

Rooted in seasonal soil-to-soil activities and updates including:

- How prescribed herbivory reduces fuel loads across the landscape in the Northern California Fibershed

- Ways that catastrophic wildfire impact migratory bird populations, and how carbon farming practices support biodiversity
- How to connect with local materials through craft skills including knitting, sewing, and pigment making, through member-taught virtual classes at the Fibershed Learning Center
- Why satellite technology is an exciting tool to efficiently monitor and value the work of contract grazers in vineyards
- How to directly support Fibershed producer members and Climate Beneficial fiber goods with holiday shopping, featuring the Symposium virtual marketplace, Northern California Fibershed Cooperative Marketplace opportunities, and more

Selected Press List

Vogue Business: Sustainable Fashion Looks Forward to the Biden Era – November 2020

Environmental Forum of Marin: Clothing to Dye For: The Story of Indigo – October 2020

Vogue: This Design Collective Is Helping Fashion Embrace Regenerative Agriculture – October 2020

Treehugger: Your Clothes Are An Agricultural Choice – October 2020



Biomimicry Institute: The Nature of Fashion: Moving Towards a Regenerative Model – October 2020

Vogue Runway: Mara Hoffman Spring 2021 Ready-to-wear – October 2020

Morning AgClips: Consumers are driving a move to more sustainable cotton farming – September 2020



Vogue Business: Are biosynthetics the future? – September 2020

For the Wild: Rebecca Burgess on Soil to Soil Fiber Systems – September 2020

WWD: Short Takes: 'The Root' Podcast Series Launches Ahead of NYFW – September 2020

CNN Style: What to read if you're worried about the climate crisis and your lifestyle – August 2020

Sourcing Journal: Biosynthetics vs. Natural Fibers: What Makes a Sustainable Material Sustainable? – August 2020

CNBC: As The North Face battles Patagonia in outdoors market, it bets tackling climate change will pay off – August 2020

Forbes: From The Red Carpet To The Wilderness: How This Actress Is Exploring Indigenous And Regenerative Practices – August 2020

One Planet Network: Webinar: Keeping Fashion close to home for better and lighter living – August 2020

Medium: Regenerative Fiber – August 2020

Atmos:Fibershed: Forget Direct-To-Consumer. Try Soil-To-Soil – August 2020

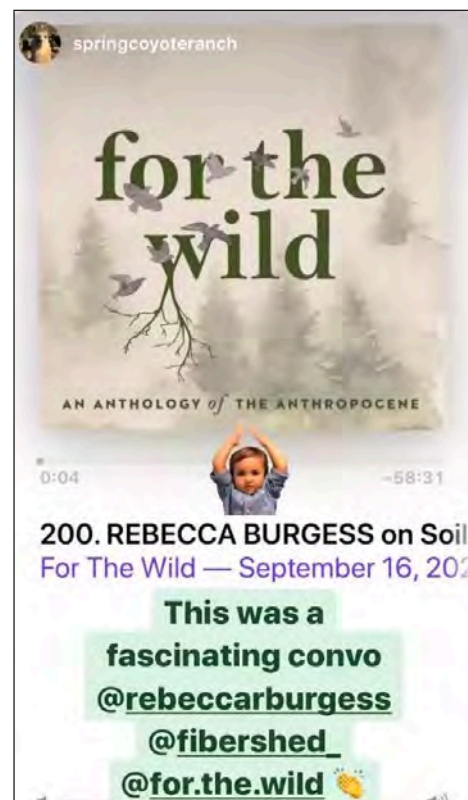
Botanical Colors: Video from live Feedback Friday: Rebecca Burgess of Fibershed – July 2020

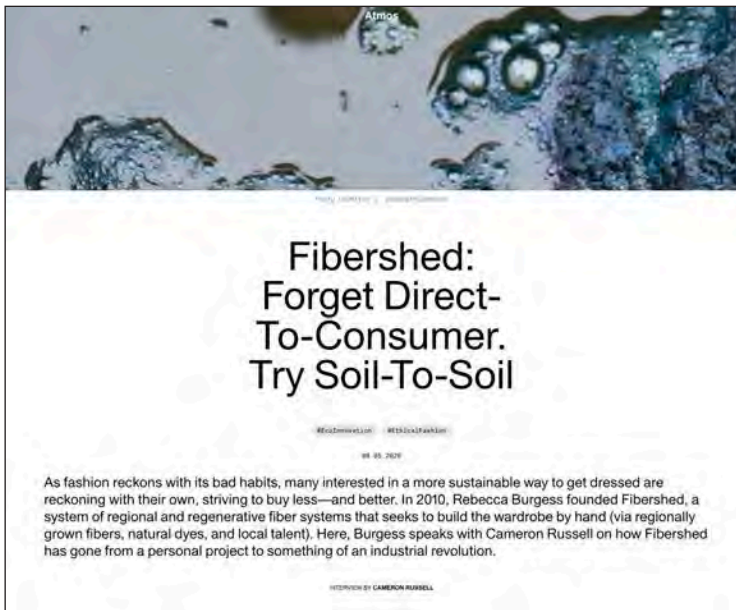
Ecocult: How Regenerative Fashion Goes Beyond Organic to Combat Climate Change – July 2020

Greenfield Recorder: Farm to Clothing – July 2020

Just-Style: Mapping Initiative Aims to Close the Loop on US Textile Manufacturing – July 2020

Luxiders: The Importance of Soil Health and How the Fashion Industry Can Help – July 2020





Sustainable Brands: Regenerative Agriculture the Linchpin for a Sustainable Fashion Future – July 2020

Eco-Age: Inside Oshadi: The Collective Building a Regenerative Fashion Supply Chain in Rural India – July 2020

Eco Farming Daily: Tractor Time Episode 43: Rebecca Burgess on the Farm to Closet Movement – July 2020

The Globe and Mail: Innovators in the Canadian textile world are building a new model for clothing production – July 2020

The Week: Mending: An ancient craft for modern times – May 2020

Vogue Runway: Regenerative Agriculture Can Change the Fashion Industry—And the World. But What Is It? – May 2020

WWD Digital Daily: Christy Dawn and Timberland Stay Committed to Regenerative Agriculture – April 2020

Selvedge: Earth Issue – April 2020

The Craftsmanship Initiative: Mending: An Ancient Craft for Modern Times – April 2020

Cultivating Place: Fibershed: Growing a Healthier Economy & Environment, with Rebecca Burgess – April 2020

Vogue Business: Where fashion's transparency falls short – April 2020

Eco-Age: Earth Logic: A Fashion Action Research Plan Putting the Planet First – April 2020

Ecocult: 8 Books About Sustainable and Ethical Fashion that you Should be Reading Now – March 2020

Vogue Business: Will COVID-19 Disrupt Fashion's Sustainability Commitments? – March 2020

Rivet: West Coast Way: California is poised to become the sustainable fashion capital of the United States – April 2020

Vogue Business: The Impact of Fashion's 'Sustainable' Capsule Collections – March 2020

Daily Hampshire Gazette: Fibershed: A Green and Local Clothing Concept (Western Massachusetts Fibershed Affiliate Feature) – February 2020

Petaluma 360: A patchwork of Farms, Artists, and Producers are Growing Petaluma's Local Fiber System – February 2020

Vogue Business: What the food industry can teach fashion about sustainability – February 2020

WNEM.com: Frankenmuth Woolen Mill Celebrates 150 Years (includes Fibershed's Climate Beneficial Wool program) – February 2020

NorCal Public Media Bay Area Bountiful: Makers – February 2020

Green Dreamer: Revealing the false promises of synthetic biology (Interview with Rebecca Burgess of Fibershed, Part 1) – February 2020

The Land Magazine: Wear the Landscape – February 2020

Eco-Age: Fibershed's Rebecca Burgess: "What Do Clothes Have To Do With Agriculture?" – February 2020

The Press Democrat: Fibershed brings local ranchers, makers together for locally made clothing – January 2020

Vox: Fashion Has a Misinformation Problem. That's Bad for the Environment – January 2020



Trainings

Deepening the Integration of Equity and Justice

BY TEJU ADISA-FARRAR

OVER THE PAST YEAR, my work with Fibershed has focused on expanding and operationalizing visions for equity and justice. There are three primary ways I have worked with Fibershed to do this: by facilitating a six-month program with all staff, by facilitating a four-part series with a cohort of Fibershed producer members, and by chairing the Equity and Justice Committee for the Regional Fiber Manufacturing Initiative. Through our collaborations, Fibershed works to further connect the dots between sustainability, environmental justice, inclusive communities, and resilient regional economies.

On a monthly basis from February to July, I facilitated two-hour sessions for all staff and forty-five-minute one-on-ones with individual staff. This work's objective was to deepen the integration of equity into their programming by increasing staff awareness of intersectional environmental justice issues. The session topics included: positionality and sharing power, land legacies in the United States, lineages within the fiber industry, micro-interventions, and defining justice-based values. We discussed how Fibershed's programming could address some existing structural inequities. Fibershed staff was given strategies and time to reflect on how they can address root causes of environmental injustice and racial inequity in their specific roles. This series led to some staff redefining work plan priorities and informed Fibershed's strategic planning.

From August to September, I facilitated four two-hour meetings for a cohort of six members from the Fibershed producer network. In these sessions, we talked about and brainstormed ideas around issues of land access,

collaborating with marginalized communities, sharing resources, increasing awareness, and peer education within the producer's network. The objectives for this Producers Cohort series were to distill core values that resonate with the producers, catalyze peer to peer education about justice-based issues, and reflect on how producers can share resources to include communities who experience environmental inequity. This series's outcome was a set of equity values defined by the cohort and ideas on how Fibershed can further support producers to practice equity in their businesses.

While working with Fibershed staff in the first half of the year, the Regional Fiber Manufacturing Initiative (RFMI) was brought up as an opportunity to incorporate equity and justice goals into the development of a regional fiber supply chain network in Northern California. In November, I became the chair of the Equity and Justice committee for the RFMI. In this role, I have worked with members of the stewardship committee and chiefs of staff to clearly define equity and justice goals for the RFMI. We are currently prioritizing equity measures that can be used to assess projects and create opportunities for collaboration at each stage.



"Our meetings helped me go about my week with a different mental framework and set of questions that helped navigate and learn more about myself, my positionality and ways in which I can leverage my privilege and be more specific with my language."

-GUIDO FROSINI, TRUE GRASS FARMS

"It is easy to feel lost in the chaos. Teju led us through discussions about privilege (in its many forms), our land histories, as well as our experiences and challenges working with individuals from different backgrounds. We also openly discussed our fears and frustrations about racism. Ultimately it was a brainstorming session about how to use whatever resources we have in a positive way to create more justice through our work and communities."

-KELLI DUNAJ
SPRING COYOTE RANCH



Guido Frosini, left, and Kelli Dunaj, above —two members of the Producer cohort that worked with Teju to define a set of equity values and came up with ideas on how Fibershed can further support producers to practice equity in their businesses. (Photo of Guido courtesy of Marin Carbon Project, photo of Kelli via Facebook)

In addition to the aforementioned two completed initiatives and ongoing chair position, I have also collaborated with Fibershed on three sub-projects. In May, Fibershed supported my Alternatives Now Zoom Training Series, in September, I was the instructor for a course they sponsored for the Slow Factory Foundation, and in November, I organized a session for the Wool and Fine Fiber Symposium.

In April, I developed the Alternatives Now Zoom Training Series with the support of Fibershed. I did this series twice: in May and July. The four workshop series outlined issues of intersectional injustice and alternatives to combat and/or mitigate the effects of injustices. Each session included participants from the extended Fibershed network, as well as created additional educational opportunities for Fibershed staff.



Black Fiber Systems:

Exploring and honoring cultural traditions from precolonial West Africa to current conversations about sustainability



Amber Tamm



Sha'Mira Covington



Teju Adisa-Farrar
(Moderator)

At the 2020 Wool & Fine Fiber Symposium, Teju organized and moderated the “Black Fiber Systems” panel — one of the most well-attended panels with a lively chat discussion and resounding positive feedback during the live event and in the attendee survey. We invite you to watch the panel recording online here: vimeo.com/ondemand/2020woolsymposium

There were participants who were interested in becoming more involved with alternatives and supporting sustainable regional economies, some of whom were hearing about Fibershed for the first time. There were over 150 participants in this series.

The Open Education Initiative (Open Edu), launched by the Slow Factory Foundation in September, offered free and open equity-centered education courses for Black, Brown, Indigenous, and minority ethnic communities in the fashion industry—taught by Black, Brown, Indigenous, and minority ethnic scholars, thinkers and educators. Fibershed was one of the sponsors for Open Edu and, as a result, collaborated on a course called: Regenerative Agriculture with Fibershed. I organized and taught this course featuring two businesses from the producer’s network: Seed2Shirt and the Prakriti Fibershed Affiliate. There were over 350 participants in this course.

For this year’s Wool & Fine Fiber Symposium: Healthy Soil and Sea, I organized and moderated a panel

session entitled Black Fiber Systems: Exploring pre-colonial materials and modern practices. Sha’Mira Covington and Amber Tamm participated in this session. This session overviewed the soil-centric fiber systems, skills, and knowledge developed in pre-colonial West Africa that were transported to the New World—creating a lineage to Black crafting traditions that evolved during the period of enslavement. It addressed Black community’s relationship to water, exclusion within dominant sustainability discourses, and articulated ways to support current Black Farmers. After the session, several symposium participants shared how resonant and useful it was for them.

Collaborating with Fibershed over the last year has shown that having equity and justice as foundational to their mission takes commitment, time, and a lot of work. This necessary work is long-term and has to be embedded, as is indicated by the myriad activities I did with them this year. By leading with a justice-centered vision, Fibershed is developing alternative futures that are truly inclusive for all of us.

Strategic Planning and Organizational Development for Fibershed

BY OLIVIA TINCANI

RECOGNIZING that the organization has reached a critical point in its development, Fibershed needs an overarching strategic plan for its coming years. We have begun a 2-3 year visioning with the leadership team. We started in summer with an in-depth discovery phase conducted via a series of conversations with Executive Director and Deputy Director, fully investigating the current status of organizational focus and direction, currently defined program objectives, mission, personnel roles, team cohesion and culture, operations workflow, and goals on the farther horizon. We have introduced the SOAR methodology—a results-based, positivity-focused version of an extended SWOT review for short term strategic visioning—in an info session, gearing up towards a virtual retreat for leaders in early 2021 to craft the long-term vision.

From that vision, we will chart a course for coming years, guide the organization through calibration of its mission as expressed through individual program objectives, and evaluate current staff roles. We will assist with reconfiguring the organizational chart and specific roles as needed and revamping team culture to express these clarified organizational and programmatic objectives. In summer 2021, we will conduct a 1-year strategic planning exercise with the full team, using the SOAR methodology inspiring accountability and responsibility for the group. This will result in a new cycle of annual strategic planning that will take place well ahead of the annual Work Plan/ grant funding deliverables and can be repeated autonomously (if desired) for years to come.

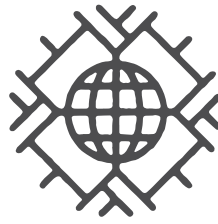


Fibershed Publication Updates and Special Features:

- *Fibershed: Growing a Movement of Farmers, Fashion Activists, and Makers for a New Textile Economy* is being translated into German
- *Fibershed* was a 2020 Finalist in the Independent Audiobook Awards for Non-fiction
- *Fibershed* was included in syllabi and curricula at Parsons School of Design, Emily Carr University of Art + Design, and Harvard Extension School's Sustainability Certificate program
- Fibershed's work, including the Wool Supply Analysis project, Wool Book, and Symposium, is featured in *Global Perspectives on Sustainable Fashion* by Alison Gwilt et al.
- Fibershed was selected to provide a chapter in the 2020/2021 Trendbook: Technical Textiles – Innovations, Trends, Markets report, organized around the UN Sustainable Development Goals. The chapter, authored by Rebecca Burgess and titled "Meaningful work and regional textile economies" was highlighted as an example of SDG #8: Decent Work and Economic Growth (the excerpt can be read at bit.ly/TechnicalTextilesChapter).

COMPLETED:

- Organized and facilitated 12 monthly hangouts for Affiliate leaders to connect and deepen their locally based efforts
- Supported ongoing membership administration, including onboarding new members, developing a new webpage, online application, and streamlined welcome process
- Provided one-on-one project feedback for Affiliates seeking grants and scoping Climate Beneficial programs in their home communities
- Developed 2 tracks of education with the Fibershed Business Curriculum, by coordinating an in-depth needs assessment with 10 survey responses, 2 qualitative interviews, and detailed scoping with Fibershed leadership and existing program evaluation review, creating a synthesis and syllabus outline for the offering, focused on the goal to create a lasting offering that blends leader and producer needs, and launching of self-guided learning track for Fibershed Affiliate Network leadership skill development, with a facilitated “expert Q&A” with Olivia Tincani scheduled to wrap up the learnings
- Oversaw the 2020 Fibershed Affiliate Micro-grants process, with member outreach and process management, review and assessment of 11 proposals, funding distribution and support for 10 projects
- Wrapped up the 2019 Fibershed Affiliate Micro-grants with educational webinars
- Redesigned the Affiliate toolkit idea and initiated work on a resource that will provide foundational guidance for Affiliates seeking to develop supply chains and prototype locally grown products with partner including brands and mills
- Postponed the New England Symposium due to COVID-19



Fibershed Affiliate Program

BY JESS DANIELS

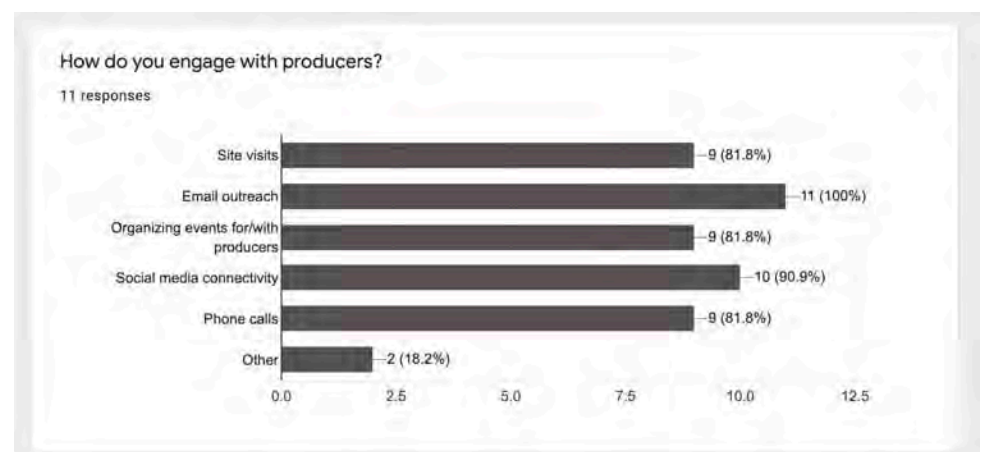
The Fibershed Affiliate Program connects a network of place-based organizing efforts to explore and develop regional fiber and dye systems. In a transformative year like 2020, the call to strengthen our bioregional economies has been more widely recognized and uniquely challenging, yet our peer communities responded with creativity and dedication.

Fibershed Affiliate Membership Network

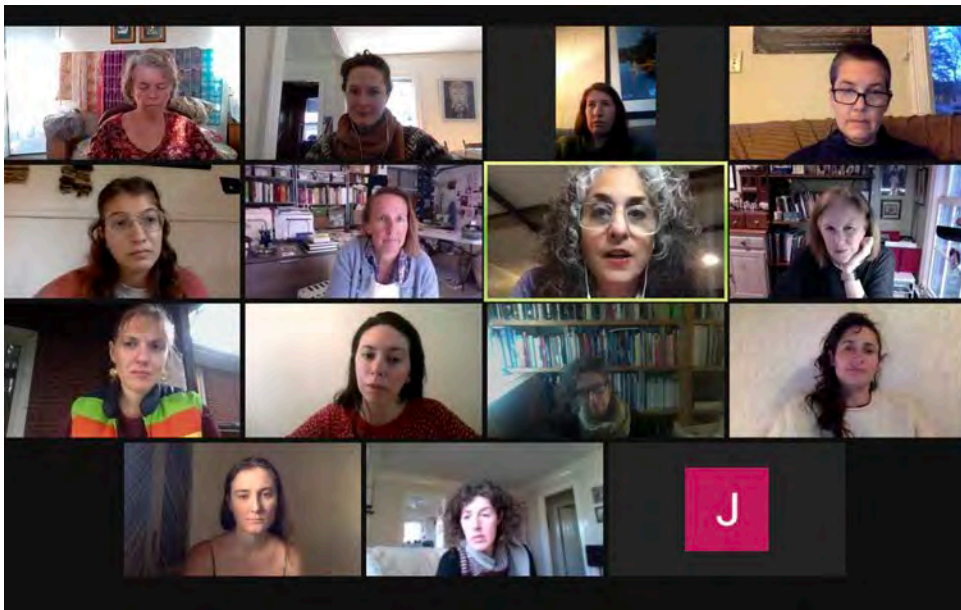
OUR 44 ACTIVE Fibershed Affiliate members represent grassroots communities across three continents and a range of scales. While local events were disrupted in many communities (such as fiber festivals, fleece sales, and educational workshops), Fibershed Affiliates expanded their efforts with resilience.

Fibershed coordinates virtual gatherings in the form of monthly hangouts on Zoom, which provide a time to get to know one another, share seasonal or project-based updates, and tap into the collective brain trust of a talented and passionate community of organizers. The hangouts throughout this year proved encouraging and essential, as Affiliate groups grappled with developing new strategies for producer outreach and public education in the pandemic. Through our virtual hangouts, Fibershed Affiliates exchange tactics and approaches, and we have seen a wave of inspiring outcomes, including: local clothing challenges, virtual farm tours and producer meet-ups, online panel discussions, and local fiber sourcebook explorations. We also discuss key topics like why and how to begin connecting with Indigenous communities within fibershed geographies.

We provide membership administration that is flexible to support the realities and needs of local cultures, economies, and interests. This year we updated our general Affiliate Program information and expanded our membership application to encourage more reflection, needs assessment, and mission development prior to joining the program. Fibershed does not charge a membership fee for the Affiliate Program, and continues

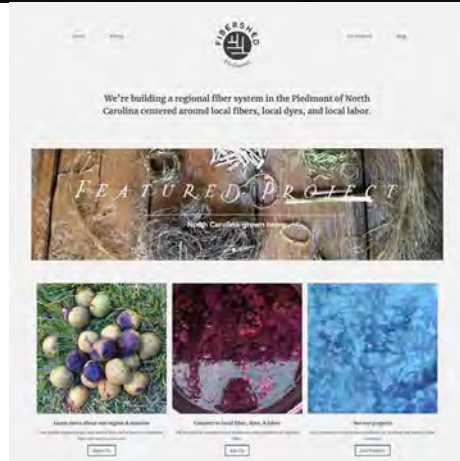


Fibershed worked with Olivia Tincani to develop an Affiliate Network offering of the Business Curriculum, beginning with a robust needs assessment including surveys and interviews.



to offer members a on-boarding suite of resources including a customized logo, individual page in the Affiliate Directory (for which we have a new online form to expedite intake and updates), and access to a library of nine video webinars for project, program, and organizing support. We also continue to offer a customized web template for members to create a site for their Fibershed Affiliate which includes an interactive producer directory and adaptable pages to describe their projects and updates.

To further resource the Fibershed Affiliate Network, in 2020 we initiated the launch of a curated offering of courses from Fibershed's Business Curriculum. Although the Business Curriculum was designed and launched for a Producer Network audience who could uptake skills into business design, the Fibershed Affiliate Network is primed to leverage assets from the Business Curriculum into their regional organizing and development. Fibershed Affiliate organizers are community leaders who are often embedded into fiber systems enterprises, whether they are a fiber producer themselves or an artist and educator.



Fibershed Affiliates gather throughout the year in virtual hangouts, as shown at left at the November Hangout. Fibershed offers a free web template which Affiliates can use and customize to communicate their local fiber systems projects and producer efforts, as shown in the Chesapeake Fibershed and Piedmont Fibershed sites.

Despite the pandemic, Fibershed Affiliates have developed creative and engaging ways to continue organizing and educating their home communities, like how the NJ Fibershed Affiliate focused on virtual tours of fiber producers, along with educational topics like “Field Restoration with Cover Crops: How We Converted Cropland to Pasture” (Photo by Laura Chandler, Smiling Dog Farm).

To begin, we worked with Olivia Tincani to generate a thorough planning phase, grounded in reviewing Fibershed's discrete goals for Affiliate relationships and utilization of these tools.

Fibershed's leadership and Affiliate Program Director provided insights to Olivia to focus scope on educational offerings that would provide skills and resources for Fibershed Affiliates to formalize their goals, activities, and community engagement. Olivia led the planning phase with a robust needs assessment that reviewed existing program evaluation and feedback, along with a new survey and qualitative interview process. The needs assessment results were documented, synthesized, and presented to Fibershed staff for a focused discussion on how to structure the Affiliate Business Curriculum offering.

We were pleased to identify matches between existing Business Curriculum courses and the learning objectives of both Affiliate organizers and Affiliate producer members. This affirms our plan to first offer selected courses for Affiliate skill-building, and develop a future phase where Affiliates can facilitate Business Curriculum courses for their producer networks. As Olivia's analysis noted:

- Our goal is to create a lasting offering that blends leader and producer needs. The offering should center around curated bundles / tracks to choose from, with Producer-centric offerings and affiliate leader-centric offerings distinguished, but without limiting exposure to the full suite of course offerings.
- This should be a free offering as part of overarching support to the affiliate chapters rather than charging them a fee for use. Given the newer/developing nature of so many affiliate groups, it feels more appropriate to offer this resource free of charge as part of the existing relationship and support offered by Fibershed NorCal.

- Producer programs are fledgling and outreach volume is still small for most affiliates, so it's a good time to get in the door with core offerings and aid them in growing and expanding their reach.

Fibershed's Affiliate Program Director is leading the course packaging and distribution phase, with two proposed tracks for Affiliate organizer learning and development:

1. Learning Leadership, covering strategic planning basics, opportunity mapping, and leadership skills
2. Growing the Network, focusing on communications and marketing planning, social media essentials, and a customer service orientation for communication

We anticipate leading a cohort of Affiliates through the "Learning Leadership" in December 2020, and we are arranging an expert "Q&A" session with Olivia Tincani to wrap up the track. The coursework will be self-paced, but review and Q&A will be folded into existing Fibershed Affiliate Program structures including our monthly Zoom Hangouts. "Growing the Network" will be offered and well-timed to generate reflection, planning, and community engagement for the start of 2021. By starting with a closed-audience offering with Fibershed Affiliate Network members, we will also gain valuable data and feedback on how to make Business Curriculum offerings accessible and relevant to communities outside Northern California. This will lay the groundwork for subsequent phases of opening additional courses to Affiliate organizers for "a la carte" uptake, and working with Affiliates to distribute the Curriculum in producer tracks such as "Cultivating Success; Moving Product; Business Basics."

Fibershed Affiliate Micro-Grants

THREE YEARS AGO we launched our micro-grants program to offer a springboard of support to Fibershed Affiliate members to develop and execute initiatives in their home communities. Fibershed Affiliates continue to inspire and amaze us with the depth and range of interests and creative projects that seek to strengthen and expand regional fiber and dye systems. Each spring, we organize community events for the prior cycle of micro-grant recipients to share their learnings and outcomes. For 2019 micro-grants presented in 2020, this included 3 webinars:

- Cotton projects: Acadiana Fibershed + Prakriti Fibershed (vimeo.com/436862536 with password indigo)
- Local fiber source books: Three Rivers Fibershed + Connecticut Fibershed (vimeo.com/436863396 with password indigo)
- Community development projects: Rust Belt Fibershed + SoCal Fibershed (vimeo.com/436864314 with password indigo)

In 2020 we administered a summer proposal sequence that resulted in 11 micro-grant applications seeking a total of \$45,816. Fibershed's leadership team reviewed and assessed applications, and awarded \$30,000 to the following projects:

- Rust Belt Fibershed: One Year, One Outfit Cohort Challenge
- Blue Ridge Mountains Fibershed: A Regional Marketplace and Product Development Survey: From Seed + Fleece to Final Product
- Acadiana Fibershed: Deepening Our Reach
- NY Textile Lab Fibershed: Carbon Farm Network Action Plan
- Chesapeake Fibershed: Mapping of Chesapeake Fibershed Resources and Community Outreach
- Great Lakes Fibershed: The Great Lakes Fibershed Community Directory & Online Resource Hub
- Piedmont Fibershed: BIPoC Fiberways: Where Culture Meets the Land
- Southeast England Fibershed: A research project to trial models for growing, harvesting and distributing natural dyes for Southeast England Fibershed
- Upper Canada Fibershed: Anti-Oppressive Strategic Plan for a Regenerative Organization
- Western Mass Fibershed: Extending Our Woolen Cloth Project and Building a Western Mass Supply Chain Directory

Below we share winter progress reports from Fibershed Affiliates who have kicked off their efforts.



After several years of successful local fiber and dye projects, the Upper Canada Fibershed is beginning an inclusive strategic planning process. (Photos by Jessica Bruce Photography)

Upper Canada Fibershed: Anti-Oppressive Strategic Plan for a Regenerative Organization

uppercanadafibershed.ca

Project Description: “In 2019, the core team began experiencing burnout, resulting in a hold on initiatives and the Board stepping back on an interim basis to revisit our goals, values, and the sustainability of Fibershed operations. This allowed us to see that we have a renewed responsibility to evolve as an organization to advocate for the needs of the communities we support, and we want to share our processes, learnings, successes and failures along the way. We want to incorporate regenerative principles in all areas we support – social, economic and environmental. We also want to continue inspiring and facilitating connection, learning and sharing. We have known-knowns on what we need to change (for instance, removing “Upper Canada” in our name as it represents an era of Southern Ontario pre-confederation history at a time of active colonization and genocide of Indigenous peoples). However, in order to create a truly regenerative organization that will enable a regenerative textile community, we want to lead in the co-creation of an Anti-Oppressive Strategic Planning Framework and



Workbook for our organization, which can be leveraged across the Fibershed community.”


Project Update: “The Strategic Planning Committee and Consultants (Steph Hamilton + The Kitchen Table Collective) have met three times. The proposal has been reviewed, amended to include additional circle sessions and more depth added to the research sessions. The committee and consultants are meeting on November 24 to shore up dates for sessions in the new year and to review the research sessions to prepare for circle sessions. A call with the other Fibershed Affiliates has been initiated by Anna Hunter and we’re looking forward to sharing our process with the other affiliates. There has also been renewed interest among other wool organizations in Ontario / Canada and we’re looking forward to sharing our process with them also.”

– BECKY PORLIER

Great Lakes Fibershed: The Great Lakes Fibershed Community Directory & Online Resource Hub

Project description: “It is clear that our community is inspired by the Fibershed movement. Many are eager to connect and contribute, but they are not always sure how to do this. We therefore need a digitally accessible tool that feeds the energy of our members and empowers them to connect and unify as a whole.

“To strengthen the engagement and inclusivity of our Fibershed, we would like to create an online directory to connect those in our community—from farmers, to producers, to retailers—by sharing contact information and resources. The information provided on the site will be enhanced by thoughtful design and intriguing photos, making it fun and easy to access and navigate. Establishing this official online presence will help our

A screenshot of a nomination form for the Great Lakes Fibershed website. At the top is the logo, which consists of a circle with the word 'FIBERSHED' at the top and 'GREAT LAKES' at the bottom, surrounding a stylized 'F' and 'L'. Below the logo, the text reads: 'Help us choose the first two artists to be featured on our new Great Lakes Fibershed website!'. The form has two main sections. The first section is titled 'What is your name?' and has a text input field. The second section is titled 'What is the name of the fiber artist that you would like to nominate? (you can only submit one entry form, but you may nominate and provide details for yourself and/or more than one artist in this single form)' and has a larger text input field.

Fibershed broaden its reach by creating connections on both a member-to-member level and with larger-scale fiber arts groups, sustainable farming organizations, and other Fibersheds in our region.”

Project update: “We brainstormed and put together interview questions for the mills, farmers, and artists we plan to feature on our website [and]



Left: A picture of the form we created to collect community nominations for our featured artists; above: an example of photos submitted by one of our featured fiber mills, Frankenmuth Woolen Mill

received responses and photos from the 2 mills and 2 farms that we are featuring. We put out a newsletter and created a survey to help our Fibershed community help pick our two featured artists. We began organizing all the components and content for our website to allow for easy design [and] researched web hosting and design options.”

– MICHELLE MCCOSKEY



The Chesapeake Fibershed launched community outreach with a virtual meet and greet this fall.

Chesapeake Fibershed: Mapping of Chesapeake Fibershed Resources and Community Outreach

chesapeakefibershed.com

Project description: “In order to better serve our fibershed, we need to have a full understanding of our community assets. To date, our efforts to map these assets has been primarily through word of mouth and local festivals. We are seeking a micro-grant to help us more accurately and systematically identify producers and users, as well as the educational, government and business resources that are available within our fibershed. This database of resources within the fibershed will help us identify opportunities for partnerships, build relationships, and understand the needs of our community.

“Given the pandemic, our plan is to have a web-accessible survey, a postal mailing, and virtual meet-and-greet

to raise awareness of the fibershed, learn about the needs and concerns in the fiber community, and to identify volunteers to do research and local outreach. Information gleaned from these efforts will help guide next projects.”

Project updates: “We held our inaugural meet and greet on 11/8/20. We had 36 attendees (that includes the panelists and Chesapeake Fibershed steering committee members). Several good ideas came out of this session and there was a good deal of enthusiasm for the fibershed and the mapping project. An email solicitation to attendees came up with 3 individuals wanting to help with the mapping project. We will meet by zoom to review the project outline, firm up the approach going forward, and assign tasks. We are drafting surveys for producers, makers, and retailers to use in the mapping project, borrowing from work done in other fibershed.”

– MARIAN BRUNO

NY Textile Lab Fibershed: Carbon Farm Network Action Plan

newyorktextilelab.com/carbon-farm-application

Project description: “We propose creating a new CFP application and information sharing process by providing a step - by - step guide for farms to collect and share the information needed in the development of a CFP (farm details, background, agricultural practices used, Agriculture Environment Management worksheets, a primer for creating a COMET profile and soil health data). Farms will be able to collect and share information at their own pace, with guidance and support available as needed. In providing the background and baseline information, farms will be actively engaged in the development of a CFP plan which will increase their involvement and investment in the process. This proposed system will also improve the efficiency of CFP planning



and development by maximizing the effectiveness of planners during farm visits.”

Project update: “Our team has started to design and develop the Carbon Farm Network Application, which is an online platform that allows a streamlined way for farmers to enroll in CFP’s. At this time, we have one page designed, uploaded, and tested on the website. We’ve also included the downloadable pdf that we have developed that correlates with the pages on the website. More pages are to be added to the CFP Application. These are currently being adapted from NRCS worksheets.”

– LAURA SANSONE



NY Textile Lab is coordinating a streamlined process for growing their carbon farming program, which already connects regional fiber to designers like Wol Hide, whose Climate Beneficial verified sweater is shown above. (Photo courtesy of Wol Hide).



Rust Belt Fibershed: One Year, One Outfit Cohort Challenge

rustbeltfibershed.com/one-year-one-outfit-project

Project description: “Participants will take the next year to design, source, and create one outfit within a cohort of other makers. The goals of this undertaking are to: Provide a structure for imaginative, slow fashion to thrive; Celebrate the incredible amount of local talent and production in our fibershed; Connect folks to each other through bi-monthly cohort meetings where we can share projects, progress, hang-ups, connections, etc. (this is not a competition); Create a collection of stories and a body of work that will provide a glimpse of our unique region and steward our valuable material and human resources. Our definition of an outfit: Three pieces of clothing, adornments, or accessories.”

Project update: “We are working with Praxis Fiber studio, organizing cohorts and keeping documentation, and looking forward to sharing those documents with the Network. We have a group of 50 people signed up, conversations are happening bi-monthly, and we have a Slack channel going for discussions.”

– JESS BOEKE AND SARAH POTTLE

Piedmont Fibershed:
BIPOC Fiberways: Where Culture Meets the Land

piedmontfibershed.org/2020/10/05/piedmont-fibershed-receives-fibershed-affiliate-seed-grant

Project description: “The goal of BIPOC Fiberways is to repair the racial and economic disparities of our local fiber supply chain. This goal can be accomplished by (1) documenting our material and cultural role in NC’s textile industry, (2) forming a bioregional network of BIPOC fiber and dye practitioners, and (3) acquiring resources with and for local BIPOC farmers for financially-viable fiber and dye farming. For this grant cycle, we will focus on executing 3 parts of what we see as multi-generational work.”

Project update: “We shared the news of our micro-grant with our community with an email and social media posts - and we received enthusiastic responses. We prepped our beds to receive fiber and dye plants for spring and are working out the greenhouse to start our seedlings. We are still in the process of finding 3-4 BIPOC natural fiber and dye practitioners to interview for the cultural archive element of this project.”

– ADÉ ONI



Piedmont Fibershed steering committee member adé Oni created this digital flyer for a BIPOC meet up, and is preparing land to grow a patch test.

Southeast England Fibreshed: A research project to trial models for growing, harvesting and distributing natural dyes for Southeast England Fibreshed

fibershed.org/affiliate/southeast-england-fibreshed

Project description: “We want to create a network of farmers and growers producing and selling a range of dyestuffs, both cultivated and foraged, to meet the demand for textiles created with fibre and colour sourced from and made within the Southeast England fibreshed... [We will] Establish dye crops at three different sites in Southeast England.”

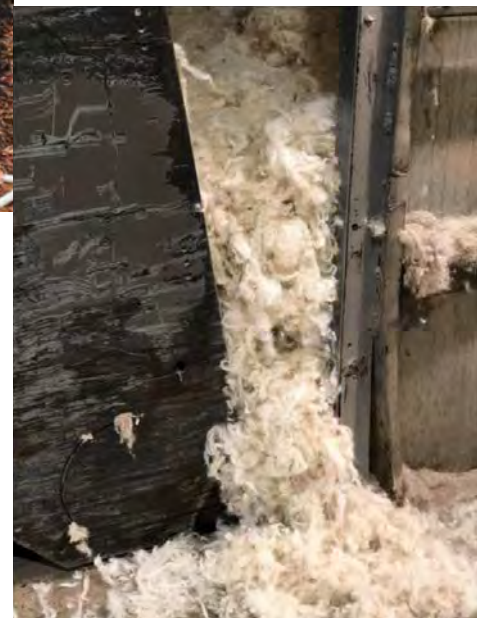
Project update: “Our micro grant team held a meeting at Plaw Hatch farm to start to plan our project with particular reference as to how we might progress the project if COVID-19 restrictions continue. We discussed how we would identify smaller groups to work with and agreed to filming workshops for uploading to IGTV if this is the case next year. Deborah will set up an instagram account for the project once its underway. It was decided that we would wait until the grant arrived in the Southeast Fibreshed PayPal account before meeting with the people



Left: Sinead and Adam of Aweside Farm are one of three participating farms who will trial growing natural dyes; below: Harriet Miller will also participate at Wheatsheaf farm, which currently raises fine Romney wool. (Photos courtesy of Aweside Farm and Harriet Miller)

responsible for the three pilot projects. As the award was made in US dollars the amount in UK Stirling would depend on the exchange rate when the transfer was made. We received £3,306.86 on 9th October. I was able to make a visit to Sacred Earth before the highest level of lockdown was announced at the beginning of November. I have made arrangements to visit the other two sites when the current lock down restrictions are expected to be lifted and we return to a tiered system from 3rd December 2020.”

– DEBORAH BARKER



*Western Mass Fibershed:
Extending Our Woolen Cloth
Project and Building a Western
Mass Supply Chain Directory*

westernmassfibershed.org/products

Project description: “Our proposed project will deepen our current endeavors demonstrating the potential of locally produced textiles, and will develop a new online directory to promote the livelihoods of the farmers, small businesses, and craftspeople who make up our local textile supply chain. We are committed to building an interdependent, thriving fiber community in our region, and the directory will help participants be aware of each other, as well as being a marketing tool which will ‘lift all boats.’”

Project update: “Our new yardage has been washed and the cloth, throws, and yarns are available for sale; two orders have been filled and several more are in process. Shepherds Dorothy and Tim Storrow (Gill, MA), Suzanne Kretzenger (Montague, MA), and Mike and Carin Freeman (Heath, MA), who donated fleece to the project, and shearer Kevin Ford, who made the connections for us, have each been given a hand-woven throw made of their wool, woven by Peggy Hart. We are co-sponsoring a local cloth pop-up event with Swanson’s Fabrics in Turners Falls, MA on Nov. 29. Their community-based mission to keep fabric out of the landfill, promote sewing and textile skills, and offer an alternative to fast fashion closely aligns with our own and we are very excited about this new collaboration. We have created a Google Sheet of prospective farmers, spinners, designers, tailors/seamstresses, feltmakers, etc. to list on our directory, and have begun reaching out to them [and] created a draft of the supply chain directory (seven listings of folks closely involved with the project, just to test out the formatting, etc., thus far) which will be featured on our website.



From top: Western Massachusetts Fibershed organizers Gretchen Laise, Marti Ferguson, and Peggy Hart look at the warp on Peggy’s loom. Our new run of 100% locally sourced and processed woolen yardage was still in the process of being woven on September 5, 2020. Katie Cavacco and Peggy Hart look at one of Peggy’s woven throws and admire the Western Mass Fibershed labels that we will include with every purchase of cloth. Gretchen Laise, Katie Cavacco, and Peggy Hart re-roll the washed yardage. This year, in response to feedback from last year’s designers, we had the cloth professionally washed before offering it for sale. This was our first glimpse of the washed cloth (October 24)! It was woven and washed as one continuous piece. Each of the three different twill patterns that Peggy wove was re-rolled onto its own tube. Despite being woven with a heavier yarn than last time, the hand and drape are springy and lovely.

We have calculated expenses/costs in detail throughout the project, with the goal of determining the “true” cost of the cloth in a more finely-grained, realistic way. We set prices with the goal of not merely covering expenses, but also generating a reserve of money for the next round. Discussions regarding organizers’ labor/time, estimated fair price for fleeces from meat sheep, etc., are on-going and fruitful. We identified

and successfully applied for a small grant from the New England Grassroots Environment Fund (\$1000). We remain committed to finding additional ways to make future rounds of yardage economically viable, including building new relationships with community stakeholders.”

– MICHELLE PARRISH

Acadiana Fibershed: Deepening Our Reach

acadianbrowncotton.com

Project description: “By deepening our reach through our marketing and educational projects and the Hilliard Museum exhibit we will achieve increased awareness and visibility in the greater community. We anticipate added support in every facet of our project as we become a recognized local commodity with global reach... Farmer recruitment will increase supply to meet the demand and further our goal of regenerative farming. As we educate and grow the farming community grows. We will have a handspun/ hand woven finished product for the niche market. The Growing Guide and agreements play a vital role in educating new growers and creates consistency in cultivation.”

Project update:

August: Lauren Odom joined our team as Social Media and Marketing Coordinator. Meagan Phipps joined our team as a Sustainability Consultant.

September 12: Acadian Brown Cotton: The Fabric of Acadiana exhibit opened at the Hilliard Art Museum. COVID-19 restrictions prevent face to face gatherings so all will be rescheduled for late spring 2021.

September 17: Noble Ellington, Director of the Governor’s Council on Revitalization of Rural Louisiana met with us at the exhibit and discussed a pathway to state funding.

September 21: Our ABC was approved as a Louisiana Certified product.

October 26: Held a “Next Step” Zoom meeting with our extended team to plan farmer recruitment and education. Caleb Fruge and Randon Dufrene suggested they coordinate a showcase



of our project at the Lafayette Farmers and Artisans Market. Our objective was to recruit farmers and artisans and increase community awareness.

November 4: Met with Escape from Poverty to continue developing our partnership and skilled workforce training program.

November 14: Showcase at the Farmers and Artisans Market (photos below).

Information and demonstrations drew many people to the tent where they could see a cotton plant, seed cleaning, ginning, carding and spinning. A monitor screened the video ‘Coton jaune—Acadian Brown Cotton—A Cajun Love Story.’ Four new farmers and two artisans were recruited.

November 17: Team members discussed and planned a traditional Acadian carding party. COVID-19 restrictions and gumbo are part of the plan!

– DEB WALDMAN & SHARON DONNAN



The Field to Fashion Acadiana team welcomed visitors to a farmers and artisans showcase, and offered a carding demo of the Acadian Brown Cotton produced regionally. (Photos courtesy of Deb Waldman)

Blue Ridge Mountains Fibershed: A Regional Marketplace and Product Development Survey: From Seed + Fleece to Final Product

localcloth.wildapricot.org

Project description: “Our proposed Regional Marketplace and Product Development Survey will expand upon and strengthen our mission. It will identify the specific products and services available within the Blue Ridge Mountains Fibershed and make that information available to all who wish to purchase them through an online marketplace, accessed through our website. Now that Local Cloth has built a community of members and supporters, we’re ready to tackle the challenge of “growing into our name” by being a catalyst for the production of cloth and garments made from local fiber.”

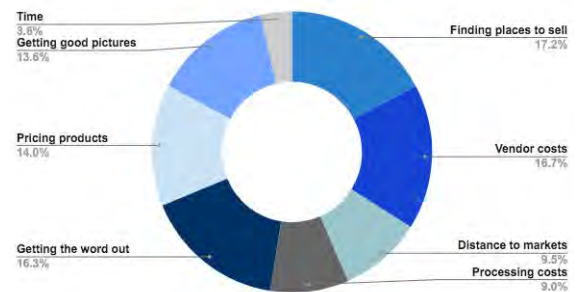
Project update: “We built a list of just under 500 contacts [and] created a ten question survey and campaign to share with Western North Carolina’s fiber farmers, artists, designers, and makers. We recruited responses in-person at our Fiber Farm Day, through email, through social media posts, and through local guild newsletters. We received 130 responses and have analyzed the data from our Local Cloth Regional Fiber & Fashion Survey with an ultimate goal of creating an online marketplace for regional fiber producers—at all levels of the supply chain. We have begun using our collected data and analysis to plan for our online marketplace soft launch.”

– JUDI JETSON



Above: Nica Rabinowitz collects survey responses in-person during Local Cloth’s Fiber Farm Day (Photo by Susette Shiver); below: a pie chart analysis of survey response, created by Nica Rabinowitz

What have been the challenges in getting product(s) to market?



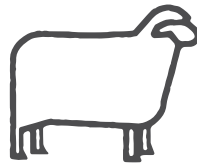
Regional Textile Economies Program

PRODUCER NETWORK

- 177 Fibershed producer members in 37 counties working 190,143 acres of land
- 13 new members joined the Fibershed producer program
- 19,449 total pageviews of the Fibershed Northern California Producer Directory on our website—that's 8.44% growth year over year
- 76 out of 110 land-based Fibershed producer members are in the Climate Beneficial™ pipeline
- Estimated 100 individual views of the COVID-19 response resources document
- 2 meet-ups organized and facilitated (1 in-person and 1 virtual) with 46 attendee's total
- 9 producer interview articles organized, created, and shared publicly
- 2 print newsletter editions developed and distributed
- 40+ hours of individual one-on-one coaching delivered to 5 Fibershed producer members

MANUFACTURING ASSESSMENT AND DEVELOPMENT

- Won first prize in the US Hemp Building Summit Innovation Slam
- 30+ stakeholder interviews as part of ecosystem mapping of the Western US Fiber Region
- 2 articles published on ecosystem mapping process and findings
- 35+ investable fiber manufacturing and processing opportunities catalogued in database
- \$1M raised in strategic investments for regional manufacturing machinery and pooling of Climate Beneficial materials



Metrics

- 40 mission-aligned investor relationships established

SUPPLY CHAIN SUPPORT

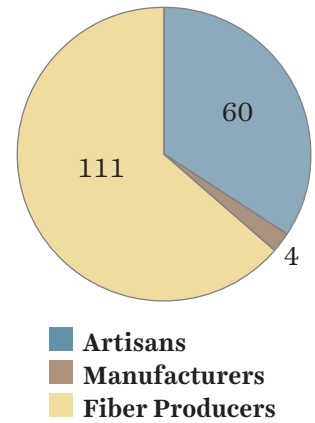
- 5 California-based brands engaged in pre-competitive working agreement to develop a roadmap for regional cotton production that regenerates soil
- 74,000 pounds of Climate Beneficial Wool secured in the development of a new Climate Beneficial Fiber Pool
- 3 new brand partnerships rooted in education on American manufacturing, soil health and climate change mitigation, and direct market development

Climate Beneficial™ Agriculture Program

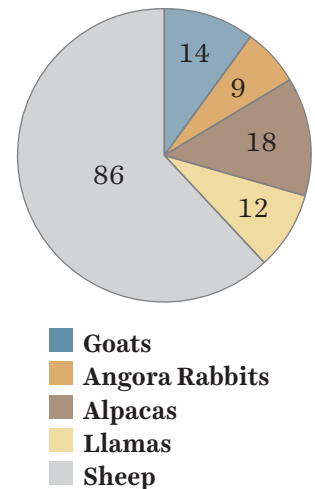
CARBON FARMING, PLANNING, IMPLEMENTATION, AND POLICY

- 171,311 acres of farm and ranch land represented within the Climate Beneficial Verification pipeline
- 17 Fibershed producer members are Climate Beneficial Verified status and 29 Fibershed producer members are Climate Beneficial Transitional
- 16 Fibershed producer members in the beginning of the Climate Beneficial verification program pipeline, 7 of them had soil testing this year
- 63 total Fibershed producer members over 22 counties in the Climate Beneficial Verification program pipeline implemented
- 156 practices on 13,213 acres of land sequestered 9,274 MG CO₂e to date and will sequester 36,279 MG CO₂e in the next 20 years

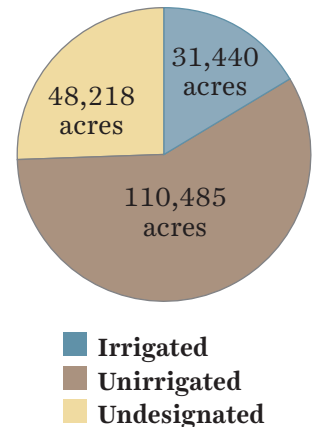
Fibershed Producer Membership by Type



Number of Producer Members Raising Types of Animals

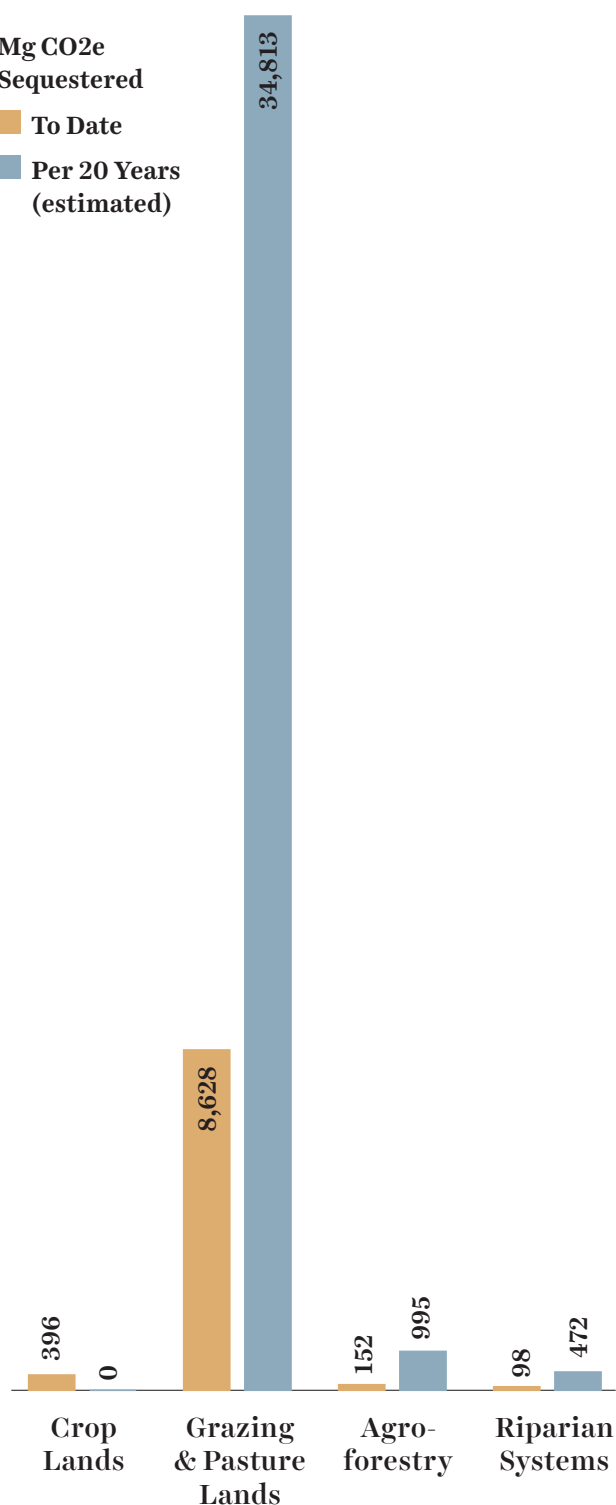


Producer Member Acreage (190,143 acres total)

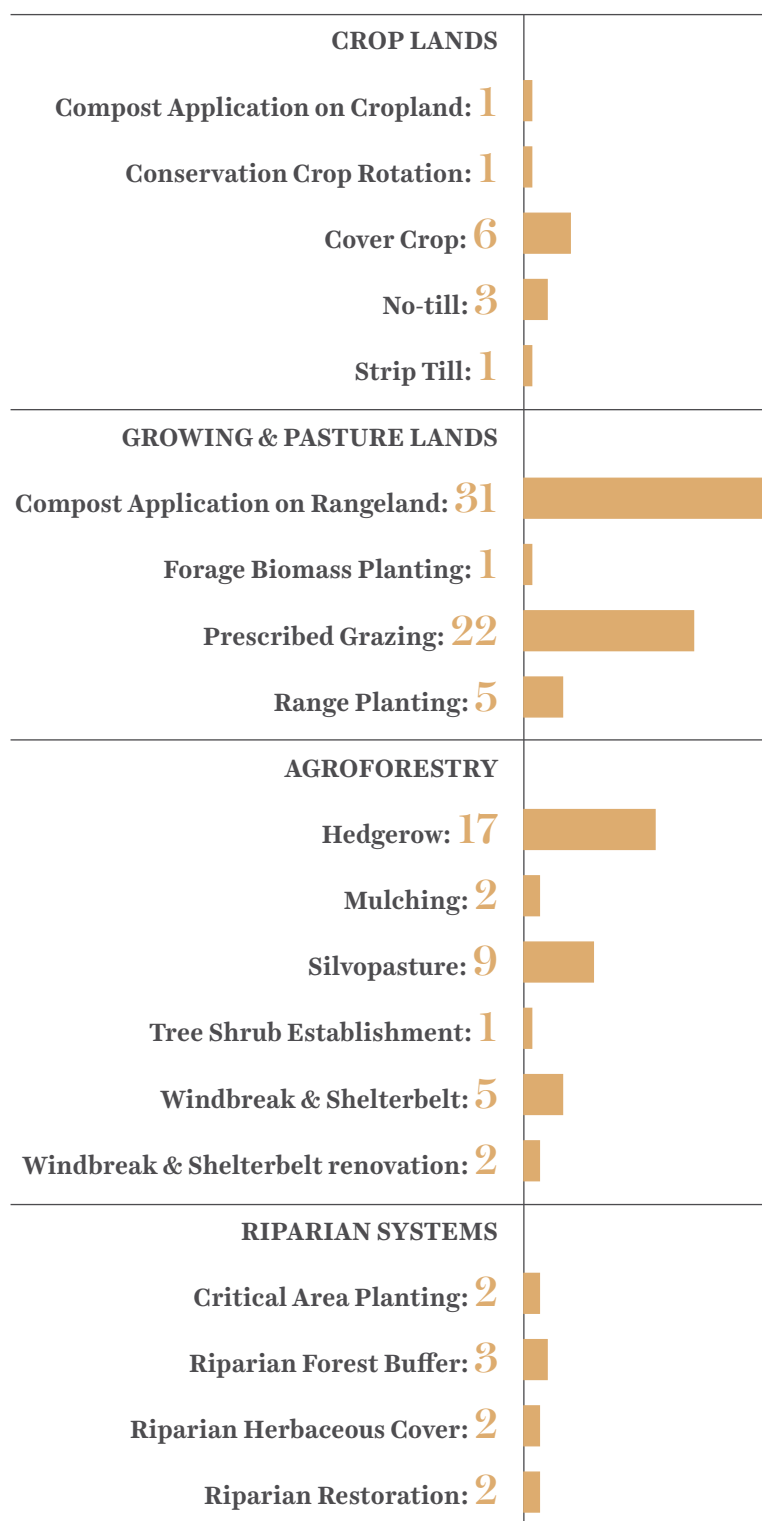


**Metric Tons CO₂e Sequestered (Mg):
Carbon Farm Practices Implemented
2016-2020 Based on System Type**

**Mg CO₂e
Sequestered**
■ **To Date**
■ **Per 20 Years
(estimated)**



**Carbon Farming Practices
Implemented 2019-2020**



- 116 total practices sequestered 3,960 metric tons CO₂e in 2019 and 2020 (remaining practices to come in 2021)
- 12 Fibershed producers awarded funding for carbon farming projects involving 21 conservation practices across 242 acres
- 8 producer members received HSP funding totaling \$670,000 for 5 Incentives projects and 3 Demonstration projects
- 36 Fibershed producers engaged in conversations with Fibershed staff regarding interest in receiving support for carbon farming practices through the Healthy Soils Program
- 14 policy letters submitted to government leaders and legislators
- 6 Carbon Farm Cohort meetings hosted on Zoom
- 2 “Carbon Farming Highlights” educational events hosted within the Fibershed producer community
- 3 new Carbon Farm Quick Guides added to Fibershed’s educational resource library

FIBER SYSTEM RESEARCH

- 800+ data samples of clothing collected through our online closet audit app
- >50% of California’s closet content is comprised of plastic fiber
- From our estimates, the Western Fiber Region could easily supply everyone living in it with a completely natural fiber capsule wardrobe (30 to 40 pieces) with just one year’s raw material supply (wool, cotton, flax, and hemp)
- 3,000 grazed acres documented and mapped through ArcGIS with contract shepherds in the winter season

- 4 new grazing cooperatives established, with mentorship, mediation and technical assistance provided
- 4,300 acres prescriptively grazed across 3 vineyards will provide the sample size for monitoring in a two-year Conservation Innovation Grant (CIG) awarded to Fibershed and Regen Network Development

Consumer Education and Advocacy Programs

EDUCATION, EVENTS, TRAININGS, AND DESIGN SCHOOLS

EDUCATION

- 16,186 total listens to the Soil to Soil podcast (seasons 1 + 2)
- 50 Press and media features from local, national, and international outlets
- 20+ posts across social media streams per week on average
- +70% growth in audience on social media
- 25% website user growth to a total pageview count of 351,645 views
- 22% increase in blog readership to 10,198 pageviews
- 30 presentations and talks to a range of audiences, educating more than 2,900 individuals through speaking engagements
- 1,300+ total individuals registered for 3 sessions developed and executed for Regenerating Our Textile System
- 5,000+ students (primarily BIPOC) enrolled in the Slow Factory Foundation Open Education course, sponsored in part by Fibershed
- 640+ California Cloth Foundry masks donated to the Navajo Nation Chinle Chapter, in partnership with The First Nations Development Institute, Mai Nguyen and Marie Hoff,

Solminer Vineyard, and our natural dyeing virtual demonstration with Deepa Natarajan

- 9 Learning Center virtual classes developed and shared with more than 580 students from 16 countries

EVENTS

- 619 tickets issued for the 2020 Wool & Fine Fiber Symposium (more than 3x the number of attendees typically hosted in person)
- 24 Symposium speakers and panelists
- 31 regional fiber and dye economy businesses represented in the virtual Symposium Marketplace

AFFILIATES

- 44 active Fibershed Affiliates around the world
- 10 Fibershed Affiliate Micro-grants awarded in 2020
- 4 new Fibershed Affiliate members welcomed
- 12 virtual hangouts hosted to connect Fibershed Affiliate members and organizers
- 10 Affiliate members surveyed, with 2 extensive live interviews for information gathering and needs assessment for Business Curriculum

TRAININGS

- 6 monthly training sessions on integrating equity and justice with Fibershed team, as well as one-on-one calls with consultant Teju Adisa-Farrar
- 4 educational sessions provided for Producers Cohort on justice-based issues and values development

STRATEGIC PLANNING AND ORGANIZATIONAL DEVELOPMENT FOR FIBERSHED

- 10+ hours of discovery/ stakeholder interviewing, including culling through existing materials for mission/vision statements for org and programs

Financial Statement

January 1 - December 31, 2020

REVENUE & EXPENSES

Revenue

Grants	\$1,420,500
Event/Earned Revenue	\$39,347
Contributions	\$30,938
Total Revenue	\$1,490,785

Expenses

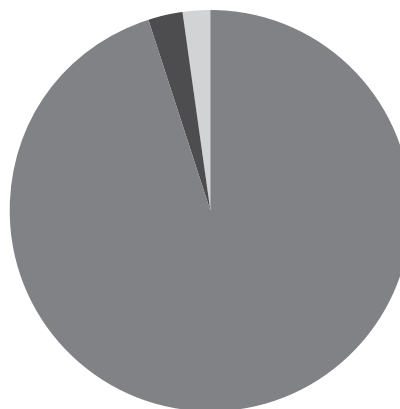
Programs/Outside Services	\$708,647
Personnel	\$391,219
Admin/General Operations	\$96,372
Total Expenses	\$1,196,238

ASSETS & LIABILITIES

Current Assets	\$952,262
Total Assets	\$952,262

Liabilities	\$128,795
Equity	\$823,467
Total Liabilities & Equity	\$952,262

Fibershed is exempt from federal tax under section 501(c)(3) of the Internal Revenue Code. EIN# 45-3055196.



REVENUE

- 95% Grants
- 3% Event/Earned Revenue
- 2% Contributions



EXPENSES

- 59% Programs/Outside Services
- 33% Personnel
- 8% Admin/General Operations

Donors, Members, Supporters & Volunteers

Our donors consist of individuals, organizations and foundations that have the ability to allocate generously to Fibershed's projects and general operating expenses. These donations, which are tax-deductible, make up the largest portion of Fibershed's annual budget.

Grants

11th Hour Project
Bainum Family Foundation
Better Tomorrow Fund
Briarwood Farm Foundation
Community Foundation of San Benito
Elizabeth R. & William J. Patterson Foundation
Fish Farm Fund at the East Bay Community Foundation
Leaves of Grass Fund
LP Brown Foundation
Lydia B. Stokes Foundation
Marciano Foundation
Regenerative Agriculture Foundation
Rudolph Steiner Foundation
Uplands Family Foundation

Fibershed Producer Program Members

2NFrom	Fawnbrooke Farm
5 Creek Farm	Ferndale Farms
Ace 'n The Hole Ranch	Fiber Circle Studio
Alpaca on the Rocks	Fiber Confections
Alpaca Shire	Flint Outdoors
Alpacas of El Dorado	Flying Mule Farm
Alpacas of Marin	Foggy Bottoms Boys
Ambatalia - nondisposable life	Fortunate Farm
Anderson Ranch	Fox Farms
Arapaho Rose Alpacas	Free Hand Farm
Ashley Eva Brock	Freestone Ranch
Barbara MacDonald	Full Belly Farm
Barinaga Ranch	Full Circle Wool
BioHue	Gather the Universe
Black Mountain Farm	GC Icelandics
Black Rock Ranch	GDS Cloth Goods
Blaer Knits	Gynna Made
Blue Barn Farm	Harston Ranch
Blue Oak Canyon Ranch	Harvest & Mill
Bodega Pastures	Heart Felt Fiber Farm
Bo-Rage Yarns	Henderson Studios
Bowles Farming Co.	HexenWald Ranch
Bungalow Farm Angora	Hollow Bone
Butte Mountain Farm	Home Spun Waldorf Dolls
California Cloth Foundry	Hopland Research and Extension Center
Canfield Hill Farm Shetlands	Housework
Caprette Cashmere	Hulsman Ranch
Carol Lee Shanks	Huston Textile Company
Cathy Wayne	ImagiKnit
Chico Flax	Integrity Alpacas & Fiber
Craig's Indigo	Italia A Collection
Crockett Fiber Art Studio	Jensen Ranch & Tomales Sheep Company
Danu Organic	JG Switzer LLC
Double Diamond Alpacas	Kámen Road
Duckworth Farm	Kaos Sheep Outfit
Eames Ranch	Kassenhoff Growers
Earth My Body	Keyaiira
EarthScapes Sheep Grazing Services	Kirabo Pastures
Ecotone Threads	Kirsten Sedestrom
Eleri Design	Kosa (arts)
Emigh Livestock	Lani's Lana ~ Fine Rambouillet Wool
Emily Cunetto	Liberty Meadow
Ewe & Me 2 Ranch	

We are deeply grateful for everyone's participation, whether it be as a donor, a member, a supporter or a volunteer. (If we have omitted anyone accidentally, please accept our apologies.)

Lissy's Zoo
 Lorrان Bronnar
 Macedo's Mini Acre
 Madrone Coast Farm
 Marin Sewing Lab
 Marin Sun Farms
 McIntyre Ranch
 Meghan Shimek
 Menagerie Hill Ranch
 Mendocino Wool & Fiber
 Meridian Farm
 Meridian Jacobs
 Michala Jeberg
 Milk & Honey 1860
 Millertown Sheep Farm
 Moon Hollow Ranch
 Myrrhia Fine Knitwear
 Nasimiyu Designs
 New Agrarian Collective
 No Man's Farm
 Occidental Arts &
 Ecology Center
 OhmGnomes
 Olivet Ranch
 Optimist Dog
 Outlaw Valley Ranch
 Owl Oak Acres
 Pacific Knitting Retreats
 Paleotechnics
 Pepper Lane Farm
 Plantspeople
 Pont Family Farm
 PT Ranch
 Red Creek Farm
 Red Twig Farm
 Red Willow Pond
 Redwood Coast Mercantile
 Rhoby's Ranch
 Rockstar Alpacas
 Rumpelstiltskin Yarn Store
 Sarah Fifield
 SecondLeaf Workshop
 Sheep to Shop
 Shepherd's Dream
 Shepherdess Holistic Hides
 Sierra Rose Alpacas
 Sierra Wools
 Silk Farm
 Sincere Sheep

Skyelark Ranch
 Slowfiber
 Sonya Hammons
 Sophie's Icelandic Sheep
 Spinning in the Wind
 Spiritplay
 Spring Coyote Ranch
 Starbuck Station Wools
 Stemple Creek Ranch
 Stonehenge Llama Ranch
 Stoneland Farm
 Stone Steps Farm
 Summer Solace Tallow
 Sunny Oak Farm
 Sunnyside Farm
 Sweetgrass Grazing
 The Farm - Mendo
 The Royal Bee Yarn
 Company
 The Wolf and Horseshoe
 Three Bags Full Wool
 Timefelt
 Timm Ranch
 Tolenas Mohair
 Tombstone Livestock
 Tree House Felt
 True Grass Farms
 Twirl Yarn
 UCCE Elkus Ranch
 Environmental Education
 Center
 Valhalla Yarns
 Valley Oak Wool Mill
 Vreseis LTD
 Warner Mountain Weavers
 Weirauch Farm
 West By Midwest
 West County Fiber Arts
 Wildcat West
 Wild Fiber Art Farm
 Wild Oat Hollow
 Wild Rose Farm
 Wind Dancer Ranch
 Windrush Farm
 Womack Family Farm
 WoolFuLove Farm
 and Fibers
 Ziz Land

Supporters

Our supporter program is
 a way to engage the general
 public with our work.
 Supporters receive various
 benefits depending on their
 level of support, and they are
 welcomed into the Fibershed
 community through early
 invitation to our events,
 workshops and symposia.

Andrea Alstone
 Barbara E Ball
 Kimberly Berg
 Joy Brace
 Heidi Carey
 Alison Chambers
 Genise Choy
 Kim Clark
 Robin Comer
 Jeanne DagenaisLesperance
 Cynthia Daley
 Meredith DeLucia
 Jamie Facciola
 Jenny Fong
 Kahla Gentry
 Sandra Guidi
 Allison Jervis
 Kerry Keefe
 Anna Sophie Lee
 Carol Lewis
 Barbara MacDonald
 Sarah McNeil
 Calley Morrison
 Renee Obrecht-Como
 Jennifer Ondrejka
 Tameka Peoples
 Marie Rounsavell
 Lee Serrie
 Elizabeth Schwerer
 Dorothy Taylor
 Gayla Tennison
 Paula VanLare
 Megan von Feldt
 William Wallage
 Mary Wegelin
 Christina Wheeler
 Jennifer Whitty

Carbon Farm Fund Donors

Linda Berlinger
 Heidi Bock
 Deborah Borzelleri
 Lily Brazel
 Mackenzie Cote
 Jennifer Dennis
 Nancy Deren
 Raphaelle Gamanho
 Abby Goodman
 Barbara Hoff
 Jennifer Jewell
 Damon Katz
 Harry Keally
 Kerry Keefe
 Kathy Kemp
 Diana Krotz
 Jessica LaCava
 Kathleen Lanphier
 Gabriel Lozada
 Tobi Marcus
 Gloria Matuszewski
 Brooke McEver
 Bernadette Milani
 Hannah Moskowitz
 Wende Mueller
 Virginia Petite
 Daniel Rosen
 Cameron Russell
 Scarlett Salamone
 Arrianna Santiago
 Kirsten Taggart
 Helen Trejo
 Megan von Feldt

Project Partners



TEJU ADISA-FARRAR

Teju Adisa-Farrar is a Jamaican-American writer, poet and urban geographer based in Oakland, California. Her focus is on environmental and cultural equity from a social geographies perspective. Having lived in 7 different countries, Teju has been involved in advocacy and human rights domestically and abroad for over a decade working on issues spanning political, racial and environmental justice. Her super power is connecting the dots between issues, globally. Teju supports artists, activists, initiatives, organizations and subaltern communities who are mapping/making alternative resilient futures.



AMY FARAH WEISS

Amy Farah Weiss (M.A. Organizational Development), is the Founder/Director of the Saint Francis Homelessness Challenge. Since 2015, AFW/SFHC has been focused on ending the crisis conditions of street homelessness and poverty through the development and implementation of code-compliant and community-integrated models for “SOS Villages” and Resident Stewardship programming.



TYLER JENKINS

Tyler Jenkins is a farmer and organizer who lives and works in North Carolina. He has spent the last decade in various public and private sector jobs in the fields of agriculture, public health, and economic development including local food businesses, non-profits, and local government, combining research with on the ground design and implementation. I’ve been privileged to work to design innovative approaches in organizing communities, creating strategy, building partnership networks, recommending policy, educating, supporting businesses, developing markets, and organizing multiple cooperative enterprises and workplaces experimenting with democratic organization and principles.



KIRSTIN MILLER

Kirstin Miller is Executive Director for San Francisco Bay Area based NGO Ecocity Builders, where she leads the organization’s program development, global initiatives and activities. Kirstin helps develop mutual understanding of ecocity goals and helps implement knowledge in new settings, including coordinating joint partnerships, projects and work plans.

She is an international speaker and presenter on ecocity design, technology, development and citizen participation.



LYNETTE NIEBRUGGE

Lynette Niebrugge works as the Carbon Farm Planning Manager for Carbon Cycle Institute where she focuses on building the capacity of land managers and agricultural conservation planners to conduct carbon farm planning and implementation. Lynette received her undergraduate degree from the University of Illinois in Natural Resources and Environmental Science and her Masters degree in Soil Science from California State Polytechnic in San Luis Obispo. She held a forestry position within the United States Forest Service for several year before joining the Marin Resource Conservation District in 2011 where she focused on education and implementation of carbon farming. She is a founding member of the Marin Carbon Project.



GAYLE RAVENSCROFT

Gayle is a knitting teacher, and collaborates with other teachers, designers, yarn producers and fiber

farmers to offer as many opportunities as possible to the local knitting community through her tiny business, Pacific Knitting Retreats, LLC.



ADRIAN RODRIGUES

Adrian Rodrigues is a Co-Founder and a Managing Director of Provenance Capital Group where he helps develop blended capital structures that catalyze resilient biological systems and businesses. Before Provenance, Adrian co-founded the boutique consulting firm Hyphae Partners. Additionally, he worked at Patagonia within its Venture Capital arm Tin Shed Ventures, helping author a standard for Regenerative Organic Agriculture and exploring Regenerative Organic Land Funds. Adrian is a graduate of Berkeley Haas' full-time MBA program. He received a B.A. in English from Williams College, studied English literature at Exeter College, Oxford University, and holds the Chartered Financial Analyst designation.



OLIVIA TINCANI

Olivia Tincani is a food and agriculture business educator and consultant with 16 years of experience in the field.

Olivia Tincani & Co. provides business, financial and strategic planning and technical assistance for small-scale independent farms, ranches, food businesses, and the institutions that service them. Her work is grounded in a deep entrepreneurial history and her ambitious spirit infuses her teaching and consulting. Her specific expertise includes livestock operations, program and curriculum design, whole animal supply chains, regional food systems strategy, communications & marketing, and community building.



ARNOLD VALDEZ

Arnold Valdez, Principle of Valdez & Associates and Rezolana Farm, San Luis, Colorado, obtained a Master of Architecture Design at the University of New Mexico in 1992, receiving the John Gaw Meem Award for his thesis on Hispano vernacular architecture. In 1999-2000 Valdez was the recipient of Loeb Fellowship of Advanced Environmental Studies at Harvard University Graduate School of Design. In 2008 Valdez was recognized as a George Pearl Fellow for his work and participation in the UNM Historic Preservation and Regionalism Graduate Certificate Program. As an Adjunct Associate Professor at the University of New Mexico School of Architecture and Planning he taught courses in alternative materials and methods of construction, cultural landscape planning, Preservation Technologies and Adaptive Reuse.



ERIN WALKENSHAW

Erin Walkenshaw is fortunate to have worked with a number of non-profit and for-profit entities and farms whose common thread is their work towards the emergence of health in and across systems. Her work with Fibershed is focused on designing and implementing a pilot program to collaborate with land managers to develop and implement carbon farm plans and create a peer-to-peer support network of fellow carbon farmers.



NICHOLAS WENNER

Nicholas Wenner is an engineer focusing on regenerative design and manufacturing. His experiences range from making and working with natural leathers in the mountains of Eastern Washington to designing and making modern products using computer modeling and CNC machining while earning a Master's in Mechanical Engineering from Stanford University. He aims to bridge the wisdom of the past with the possibilities of today to foster mutually supportive relationships between modern humans and the world that sustains us.

Fibershed Staff



REBECCA BURGESS

Rebecca Burgess is the Executive Director of Fibershed, and Chair of the Board for Carbon Cycle Institute. She has over a decade of experience writing and implementing a hands-on curriculum that focuses on the intersection of restoration ecology and fiber systems. She has taught at Westminster College, Harvard University, and has created workshops for a range of NGOs and corporations. She is the author of the best-selling book *Harvesting Color, a bioregional look into the natural dye traditions of North America*, and *Fibershed: Growing a Movement of Farmers, Fashion Activists, and Makers for a New Textile Economy* released in 2019. She has facilitated an extensive network of farmers and artisans within our region's Northern California Fibershed to pilot the regenerative fiber systems model at the community scale.



JESS DANIELS

Jess Daniels is the Director of Communications & Affiliate Programming for Fibershed, where she creates written and visual collateral connecting wearers to the ecological and social source of their clothing, and facilitates an international grassroots network of communities building soil-to-soil fiber systems. She has a decade of experience working to strengthen local food and fiber systems, from urban farming and education to sustainable agriculture advocacy campaigns and litigation, and her work has been published in the journals *Agriculture and Human Values* and *Making Futures*. She holds a B.A. in Environmental Studies and Visual Art from Brown University, where she completed textiles coursework at Rhode Island School of Design and studied with the International Honors Program 'Rethinking Globalization' field school in India, Tanzania, New Zealand, and Mexico.



HEATHER PODOLL

Heather Podoll is the Partnership & Advocacy Coordinator for Fibershed. She manages communication and outreach relating to public grants and other core Fibershed projects. Heather holds an M.S. in Agricultural Ecology from UC Davis. She has spent the past 20 years involved with research, practice, promotion, and teaching of sustainable and organic agricultural systems, working with a range of nonprofit, philanthropic and educational organizations. As an avid knitter, she is delighted to bring together her background in ecological research and agricultural systems with a holistic and local perspective on fiber arts and textile systems.



MARISOL VALLES

Marisol Valles is the Deputy Director for Fibershed. She is a seasoned executive with over 20 years of experience in non-profit and hospitality management graduating with a BA from San Francisco State University. Through her solid management, a keen eye for detail, and consistent application of policy, Marisol oversees the operations, human resources, and finances for the organization.

Board of Directors



REBECCA BURGESS, M.ED, CHAIR

Indigo farmer, author, and community organizer. Her work is focused on natural dye processes and regenerative agriculture, textile education and public speaking. She is the executive director of Fibershed.



KAT ANDERSON, PH.D

Ph.D. in Wildland Resource Science from UC Berkeley and author of the book *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*. The book was recently chosen by the celebrated permaculture designer Ben Falk, as one of the most important books to read in order to permanently solve food security. Kat has worked with Native Americans for over 25 years, learning how indigenous people judiciously gather and steward native plants and ecosystems in the wild. Her interests are to learn, celebrate, and restore the similar plant uses, gathering and tending practices, and ethical stances towards nature that are in multiple local cultures here and around the world.



MARLIE DE SWART

Marlie is a fiber skills educator and small business owner, as well as a fiber and ceramic artist. She has been involved in creating fiber works from local sources since childhood. She grew up in Holland, graduated from the Sorbonne in Paris and Occidental College in Southern California, and met her husband while attending Art Center College of Design. Currently Marlie has a local fiber arts cooperative store, Black Mountain Artisans, in Point Reyes Station. She recently published a book of her knitting designs called *Knitting Woolscapes, Designs Inspired by Coastal Marin Wool*.



DUSTIN KAHN, SECRETARY

Dustin has been a graphic designer for over 40 years, primarily in publication and website design. She also grows dye plants and is a natural dye instructor, having studied natural dyes since 2009, with a special interest in indigo. Dustin is currently organizing virtual fiber arts classes at the new Fibershed Learning Center, to open to the public in 2021.



NICK L. TIPON

Nick is a member and elder of the Federated Indians of Graton Rancheria. A retired high school teacher, he has served as Chair of the Tribal Education Committee and the Sacred Sites Protection Committee of Graton Rancheria. He was a Board member of the California Mission Foundation. He is currently a Board member of the Historical Society of Santa Rosa, Fibershed, and is a consultant for the National Smithsonian Museum of Natural History, the Richmond History Museum and the Field Museum of History in Chicago, Illinois. He is an active faculty member of the STRAW (Students Teachers Restoring A Watershed).

Among Nick's current interests is investigating the effects of the colonialism during the "contact period" on his ancestors, by the Russians, English and Spanish. He is investigating the impacts of climate change on sacred Tribal resources and lands from a cultural perspective and TEK (Traditional Environmental Knowledge) perspective. He was recently a presenter at the California Adaption Forum on these topics.



FIBERSHED

Local Fiber, Local Dye, Local Labor