

THE CULTIVATOR

NEWS FROM THE CORNUCOPIA INSTITUTE

FALL 2021

Heartbreak and Hope

The diagnostic story of California Cloverleaf Farms Dairy

BY RACHEL ZEGERIUS

California Cloverleaf Farms is the latest casualty in organic dairy. Crushed by the onslaught of industrialized producers, Ward and Rosie Burroughs, with son Zeb and daughter-in-law Meridith, recently closed the doors on their 550-cow operation in the San Joaquin Valley.

The loss of such an iconic organic dairy is exceptionally sour. Ward's grandfather, Ben Burroughs, delivered milk by horse and wagon with his brothers in California's East Bay in 1906. For more than 100 years since, the Burroughs family has

committed their lives to building a strong organic dairy industry, not only for themselves, but for the entire community.

Certified in 2004, Cloverleaf personified the bedrock principles of organic agriculture: continuous improvement of the soil microbiome, grass-fed cows on pasture year-round, replacement animals born and raised on the farm, hedgerows for pollinators, French drains for surface waters, corridors for wildlife, and more.

"The organic dairy industry had the best supply management system

ever figured," says Ward. "You had to graze cows to produce organic milk. But for some people, that wasn't good enough for the bottom line."

Conventional milk producers elbowed their way into the organic dairy marketplace, quickly increasing milk supplies by transitioning many conventional heifers to organic production. This erosion of authentic organic dairy was enabled by certifiers, inspectors, and the USDA National Organic Program's failure to enforce the mandatory grazing requirement and adopt and enforce a new Origin of Livestock Rule. The resulting glut of cheap "organic" milk in the market, coupled with a decade-long crisis of destructive competition, has had dire consequences.

"It all comes down to this: If the pay price is not high enough to cover the costs of farming, you're not going to survive," says Ward. The *pay price* is the amount of money a farmer will receive per unit of fluid milk and is determined by a complex system of regulatory and market drivers.

Industrial farming impacts the complicated mechanism by which pay prices are determined. Rosie explains, "Dairy farmers are *price-takers*, not *price-setters*. The price farmers receive is not based on what

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PHOTO BY PAOLO VESCIA

Together with their children and grandchildren, Ward and Rosie produce USDA certified organic almonds, beef, eggs, olives, walnuts, and milk in California's Central San Joaquin Valley.

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Growing a Fresh Start

Rockside Ranch is farming with intention — and helping those in crisis along the way

BY PATRICK MYERS

Rockside Ranch in northern California is one operation with two objectives. As the name implies, Rockside is in part a ranch, specializing in the sale of organic poultry. But Rockside also helps young men overcome personal crisis, such as addiction and loss of meaning in life.

Rockside's participants live on-site and are immersed in farm activities, community, and classes on spiritual formation and life skills, benefiting from the structure that farm life provides. Students collect and wash the eggs from the farm's certified organic chickens and monitor the birds while they forage in mobile coops on 30 acres of pasture.

By keeping their operation small-scale and only taking on eight students at a time, Rockside is able to provide their animals with the space and care they need while also focusing on each participant's individual needs and future career opportunities. Among students who have graduated from the program, over 80% are employed today.

While enrolled at Rockside, students become an integral part of a local, sustainable food chain. They learn how to prepare and eat nutrient-dense, whole foods and share their knowledge in the community. Rockside's close-knit clientele often send thanks to the students for the ethically produced and nutritious meals they provide.

Rockside director Craig Thompson explains, "We treat our animals with dignity and respect and we have a close relationship with the majority of our customers. When our customers buy from us, they know they're not only getting a more nutritious meal, they're also contributing to the

restoration of the students' lives. In turn, the students come away knowing they contributed to a beautiful family experience."

Nothing exemplifies this relationship better than Rockside's sale of turkeys during the Thanksgiving season. The students help process and package the birds, which are slaughtered on-site. Raising a flock of 75 broad breasted white turkeys, Rockside sells the organic birds at local markets and delivers directly to families across

northern California.

Going on 11 successful years, Thompson is now focused on opening a new ranch and program in South Dakota and expanding the Rockside model to other farmers and ranchers. He sees Rockside as a model that could work for organic farms across the country, helping communities heal inside and out.

Cornucopia's Organic Poultry Scorecard



PHOTO COURTESY OF CRAIG THOMPSON

Heartbreak and Hope *(continued from cover)*

it actually costs to produce the milk."

Staunchly committed, the Burroughs fought to survive in the increasingly consolidated marketplace by direct marketing their own milk and cheese to consumers. But deep roots and dedication did not guarantee Burroughs Family Farm milk a spot on the grocery store shelf.

Contracts with stores, distributors, handlers, and processors are inaccessible, monopolized by industrial players who benefit from

decreased production costs and economies of scale. Tanker loads of milk afford them stronger negotiating positions. At the same time, processors who once collected milk directly from farms are dropping contracts with longtime local, organic farm families.

With dwindling connections among farmers and processors, more milk is handled by brokers. A broker drives the pay price down even further. Their message: with an oversupply of milk, they can't afford to pay more.

As they pick up the pieces and move on, the Burroughs are not alone. Over the years, they have seen many dairies go out of business. This year, at least three high-quality western organic dairies have closed their doors. Since 2009, 20 organic dairy families have closed in the San Joaquin Valley. Dairy farmers continue to lose their homes, their land, and their family heritage at an alarming rate. And, as consumers, we have diminished access to the highest-quality, grass-based organic products at the grocery store.

PHOTO COURTESY OF ROSIE BURROUGHS



Burroughs Brothers bottling was established in 1915.

This trend started in the West more than a decade ago and continues to devastate farm families in New England (*see below*). "Today many dairy farmers have no place to go with their milk," explains Rosie. "With no choice, they get paid only what the handler wants to pay. Many others will go out of business without a contract."

"As heartbreaking and disappointing as it was to close Cloverleaf — I would not change what we did, because we did what we knew was the right thing, and we did it for the right reasons," says Rosie. "I value the experience, and I am *really* proud of our family, our children, the effort to market our own milk, the dedication, perseverance, and determination. We are honored to farm organically."

Cornucopia's ED Weighs in on the Dairy Crisis

How to put your values into action

Dear supporters of Cornucopia,

Cornucopia provides a bridge — we connect consumers to organic farmers and food. Authentic organic farmers are systems thinkers, aiming for continuous improvements in nutrient density, yield, biodiversity, resilience, and the living soil that helps nourish healthy animals and humans.

As eaters, we strive for choices that support these systems. But we don't all have the access to eat only the most nutrient-dense food or the time to figure out *all of agriculture*. If your food budget is limited or you're eager

to put your values into action, and you drink milk, consider the organic dairy you buy. Massive "organic" factory farms with feedlots brimming with cattle and manure produce the bulk of store brand organic milk.

Dairies like the recently closed California Cloverleaf Farms are disappearing at an alarming rate.

On the other side of the country, Danone/Horizon has ended 89 contracts with organic dairies, supposedly too far from its processing plant in the Northeast, to meet its goals for cutting trucking emissions — without a word about the greenhouse

gas-emitting mega-dairies from which it continues to source.

Use our Organic Dairy Scorecard to resist this factory farm takeover. And let us know if your favorite brand is missing from the list.

These authentic organic dairies persist as bright spots in the marketplace. We play a critical role in the food system simply by seeking out and buying their products.

Warmly,

Melody Morrell, Executive Director

Savannah Stalwart

Local keeps organic farms on the menu, in the aisles

When Kristin Russell opened The Sentient Bean 20 years ago, she situated the coffee shop next door to Brighter Day Natural Foods Market, the only independently owned natural food retailer in Savannah, Georgia. Foot traffic wasn't the only reason. She wanted organic produce on the menu.

"We never would have met the minimum to get organic produce delivered to us without piggybacking on their orders," she says.

Today, deliveries for both businesses are handled on the same order. In 2020, after the former owners of Brighter Day retired, Russell and her partner stepped in as the new owners, continuing the retailer's legacy. Both businesses help keep community-scale organic growers thriving. "If a local organic grower comes to us, (Brighter Day) will find a home on the shelf for it," she says.

Connecting with new farmers is a long-term goal that aligns with Russell's work as a board member of nonprofit Georgia Organics, which aims to grow the number of organic farms in the state to 200.

From the certified organic peanuts (*see right*) lining the shelves at Brighter Day to the peach pancakes on the menu at The Sentient Bean, consumer purchases are vital to growing and sustaining the local organic marketplace.

Human health is what typically brings people through their doors. But Russell aims to draw connections to other values, including cultural, community, and climate health. From her standpoint, organic supports them all.



PHOTO COURTESY OF SHIRLEY DAUGHTRY

The Nonagenarian Farmer

Most days you can find 90-year-old Shirley Daughtry handpicking her certified organic peanuts in the fields of Heritage Organic Farm. "We boil them here," she says. "And when I say *we*, that's mostly *me*."

Daughtry set aside her least favorite task — bookkeeping — to discuss the history of her southeast Georgia farm, the first in the state to be certified organic.

How Brighter Day Natural Foods (see left) is linked to Heritage

We started about the same time (early 90s). Now the former owner is working on our farm. He's very interested in learning how to improve the soil and figuring out what the plants need to make them more nutritious.

Organic roots

I lived in an agricultural county and cancer was rampant. My mother would take us away for the summers to escape. She gave me a copy of *Organic Farming* magazine. I pursued farming as a hobby first.

Why community-scale authentic organic farmers matter

They're in it to make a difference in people's health and the health of the environment. When we started, we sold boxes of certified organic food and included nutritional notes and recipes. I had previously been a principal of a middle school and education was the thing I chose to get more people interested in the (USDA organic program). These boxes were not a money making project — we did it to help families.

Current challenge

Fire ants — at least 400 mounds. They love to eat germinating seeds. If we were a conventional farm, we'd just spray them with poison.

Powered by people

We do everything by hand. It's a work of love. When people say "I'd like to come out and learn how to farm organically," I tell them they can work for their tuition. They end up loving it and want to come back.

Rooted in the Land

A Way of Life Farm in North Carolina aligns economy with ecology

Earlier this spring, Jamie and Sara Jane Davis showed their crew pictures of A Way of Life Farm circa 2009, the year they had purchased the Bostic, North Carolina land.

"It looks like high desert country," remarked one of the farmhands.

A previously clear-cut pine forest, the farm was shrubby with regrowth in some places, bare and devoid of life in others. Red clay soil — all that remained in certain spots — belied the wet and fertile growing conditions of western North Carolina.

A Way of Life's journey from barren to abundant has been years in the making, born out of a carefully considered philosophy of growing good food while living intentionally. For Sara Jane, her passion was sparked by a childhood working her grandfather's garden. For Jamie, an upbringing cutting hay and mending fences on his family's horse farm cultivated a deep interest in working with the land and, eventually, permaculture design.

"We wanted to be producers in the world, not just consumers," Jamie says. "By farming, we knew we could take something — like a piece of land that had been clear cut and ravaged — and turn it into something ecologically productive and biologically diverse."

Today, A Way of Life Farm is a thriving, certified organic farm, supporting over 40 varieties of fruits and vegetables and a diverse mix of cover crops, such as a planting of sorghum-sudangrass, buckwheat, and sunn hemp. The sunn hemp hosts wild nitrogen-fixing bacteria that take nitrogen from the atmosphere and convert it into a plant fertilizer.

Soil health is the root of everything at A Way of Life, including the farmers' recent dedication to no-till practice.

A conventional way of preparing soil for planting by physically 'churning' or 'turning over' the soil, tilling has been used by farmers for thousands of years as a way to aerate soil and

protect farms from weeds and insects. The majority of organic farmers till their soil to avoid the use of chemicals that control weeds and pests.

But tilling has its downsides — it releases carbon into the atmosphere, contributing to climate change, and disrupts soil structure. Soil that is tilled may be more susceptible to erosion and water evaporation, increasingly a concern as drought grips much of the country. With an eye to the future, organic farmers like the Davises are learning how to build soil health and sequester more carbon by employing no-till fruit and vegetable production, practiced by indigenous people around the world for thousands of years.

The Davises pay close attention to the land for signals from their soil and produce, customizing a unique approach to each field. In the same bed that had been worn down to red soil by logging trucks, they now pull beets and Irish potatoes by hand in order to preserve the structure of the dark soil teeming with life. In other fields, they employ practices like intercropping — planting, for example, cilantro between broccoli heads and letting it go to flower — to attract beneficial insects.

The payoff of these more labor-intensive approaches has been a more resilient operation.

"We're not just trying to grow plants, we're trying to create a living system in the soil," says Jamie, who sees farming as a form of activism. "When the soil is really thriving, our plants are healthier and therefore more pest and disease resistant; they have a larger and wider array of nutrients. And when we eat produce from living soil, we're healthier and more disease resistant as well."



PHOTO COURTESY OF A WAY OF LIFE FARM

Why Breeds Matter

The future of cattle lies in genetic diversity

BY MARIANNE LANDZETTEL

Ninety-nine percent of the roughly nine million Holstein dairy cows in the US can be traced back to two bulls that were born in the '60s, according to researchers at Pennsylvania State University.

Synonymous with milk, the Holstein is favored for its “high performance,” or high milk yields. The flipside of this breed is the toll on the cows’ health: lameness and mastitis are ever present threats.

Black Angus cattle, the most common beef cattle breed in the US, don’t fare much better. Also selected for high performance, they originate from Scotland, which has a temperate climate. Their dark coats, which get extremely hot, are ill-suited for our warmer temperatures. For these large, sluggish animals that have been bred to consume a huge amount of feed in a short period of time, “grazing” often means waiting around for the feed truck to arrive.

As the gene pool in cattle dramatically narrows, authentic organic farmers and ranchers offer a crucial service to our food supply: genetic diversity. Breeds are an important differentiator for community-scale organic agriculture, in which each farm and ranch is an ecosystem, and cattle are the integral part that maintain and hone it. Working in concert with the local environment, authentic organic farmers often choose rare breeds — a living gene pool that contributes to the type of resilient food systems that are crucial to food security.

These rare breeds are regionally adapted to thrive in a particular landscape, climate, and on the forage available where the breed

was developed. For example, cows in Colorado are likely to have genetic adaptations that ease the stress on their heart at high altitudes, according to research by Jared Decker, associate professor at the University of Missouri. His team is working on a cost-effective genetic test that would allow ranchers to decide whether cattle are suitable for a particular environment.

For ecologically based farming, suitability comes down to grazing. In 1984, cattle breeder Del Ficke set out to breed resilient grazers. Over the years he has brought genetics from a variety of different breeds into the herd, each chosen for particular traits.

Ficke, whose operation is near Lincoln, Nebraska, started with Herefords, crossing them with Red Angus, who are very maternal, unlike Black Angus who can be difficult to handle. Next came Simmentals, a “dual use” breed that can be raised for milk or beef. “They drink about half of what others consume, which is important

in an area where you need to conserve moisture,” he says. French Aubrac contribute other important traits: They forage efficiently and are known for very tender, aromatic meat.

The family tree of his cattle includes about 20 different breeds — what Ficke calls “cowboy genetics.” Ficke made the intentional decision to register his cattle as the “GrazeMaster” brand and not as a breed because he wants the genetics to remain diverse. He believes the animals should be well suited, happy, and bred to thrive in different regions, on different forage, and in varying climates. When he sells a bull, semen, or a heifer, he helps farmers choose animals with genetics that are ideally suited to a particular ranch or farm and, ultimately, the overall health of each system.

Support the continued existence of rare breeds by buying authentic organic meat and enjoying the variety of flavors. The taste of organic grass-fed beef is an expression of the breed and the landscape in which the animals were raised.



Del Ficke’s “GrazeMasters” — cattle bred to be resilient grazers.

PHOTO COURTESY M KUNZ

A 40-year Experiment in Organic Food

Takeaways from Rodale Institute's Farming Systems Trial

BY LISA ELAINE HELD

In Eastern Pennsylvania, fields of corn that stretch endlessly towards the horizon are a common sight. But 12 acres in Kutztown are nothing like the rest.

It’s the site of Rodale Institute’s Farming Systems Trial (FST), the longest running side-by-side comparison of organic and conventional farming in the world.

This year, Rodale — a trailblazing force for organic and regenerative farming in the US — is celebrating the trial’s 40th anniversary. The experiment has produced a wealth of impactful data, influencing the creation of the United States Department of Agriculture’s organic certification program and inspiring other research trials around the world. (Side note: George Washington Carver was pioneering organic soil-building techniques 70 years earlier, and his contributions are often left out of organic’s history.)

Plenty of food, healthy soil

Rodale researchers launched the FST in response to a USDA survey in the 1980s, explains Jeff Moyer, Rodale CEO. The survey found that one of the main reasons farmers were reluctant to transition to organic was that they worried about sources of nitrogen, the most essential nutrient for plant growth.

Rodale researchers decided to measure how crops given nitrogen in different ways performed. “The first thing we found was that we could actually produce equal yields in organic systems to conventional, even without animals. The other thing we found was that animals in the system made things much easier,” Moyer said.



Soil from a conventional field, on the left, compared to an organic field, on the right.

PHOTO COURTESY OF RODALE INSTITUTE

In other words, organic farmers wouldn’t necessarily have to sacrifice yields. Other studies have found the opposite, but Rodale researchers say that’s a function of time. Most studies are short, and when farmers switch to organic, yields do drop — in the first five years. But the FST has shown that over 40 years, the soil bounces back and things level off. Organic fields in the trial have been able to weather periods of drought much better than conventional.

Soil health and climate change

FST data also shows impressive increases in organic matter in the soil compared to conventional fields.

This matters because organic matter is where carbon hangs out. As in, the carbon that is causing mayhem above ground as a greenhouse gas can be stored beneath our feet, and other long-term farm trials have all found higher levels of carbon in organic soils, especially deep down where it’s likely to stay for longer periods of time. There are many questions remaining on how to best sequester carbon in soil and whether the

amount could be meaningful in terms of slowing down climate change, but this research is promising.

“One story that we can tell from the FST is that we can improve soil health by the way we farm,” Moyer said. “Twenty-five years of continuous [conventional] corn had killed that soil. We were able to take that soil and regenerate it.”

And yield and soil health are only two metrics in a system that includes so much more. It’s essential to consider all of the effects, from pesticide impacts to nutrient content.

“If the goal is to ask: How do we kill weeds or manage weeds most efficiently and effectively and in a cost effective way, herbicides work. But that’s not the goal of agriculture, right? That’s one step in a process that [should] produce healthy food for healthy people and a healthy planet,” he said. “We’re not suggesting that conventional doesn’t work. If the goal is to produce tons of stuff, it works. We’re suggesting that it doesn’t work if the end goal is human health and planetary health.”



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New Push to Rid the Organic Marketplace of Carrageenan

Carrageenan, a highly processed additive derived from seaweed, is once again up for review by the National Organic Standards Board (NOSB).

In the decade since Cornucopia began working with scientists to study the inflammatory effects of carrageenan, we have heard from thousands of suffering people.

Armed with more research and testimonials from organic eaters, nutritionists, and doctors, Cornucopia will once again urge the NOSB to remove carrageenan from organic food.

While industry claims otherwise, the risk to human health is undeniable – and there's more carrageenan in our food than ever before.

Stay tuned for our coverage of the fall NOSB meeting.

National Organic Standards Board (NOSB): By the Numbers

The National Organic Standards Board is a 15-member, all-volunteer board that relies on stakeholder input to advise the National Organic Program (NOP), a branch of the USDA.

33

number of NOSB meetings covered by Cornucopia since 2003

66%

of supporters listed NOSB/Policy Watch as #1 issue in 2020 survey

6,877

number of words of formal written testimony submitted to the NOSB by Cornucopia staff in 2020