THE BENEFITS OF AN ORGANIC CALIFORNIA

A Sneak Peek Into the CCOF Foundation's Groundbreaking Report

2019 CCOF Annual Meeting and Conference
30 Years Later: How the Grateful Dead Saved CCOF Resilience Through Chapters
At TRUE Organic Products, we are consistently focused on bringing new ideas to the forefront. Our expanded Research and Development team is committed to innovating new products and improving existing product lines while providing customers with valuable agricultural services; assisting customers with addressing concerns and overcoming challenges.
The Benefits of an Organic California

California has the opportunity to utilize organic as a strategy for improving public health and prosperity while paving the way for other states to benefit from organic agriculture.

Departments

05 First Words
From CCOF’s CEO

07 In the News
Organic making headlines

11 Member News
Members doing great things

15 Foundation Programs
CCOF Foundation at work

21 Organic Advocacy
Supporting organic interests

35 Chapter Update
Staying active with your chapter

37 OTA Update
OTA’s report from the Capitol

39 Certification News
Keeping you compliant

45 Member Listings
New CCOF members

45 Advertisers Index
Find our partners’ ads

CCOF, Inc. Board of Directors
Phil LaRocca, Chair, LaRocca Vineyards; Malcolm Rico, Vice Chair, Bolthouse Farms; Vernon Peterson, Treasurer, Abundant Harvest Organics; Thaddeus Barsotti, Secretary, Capay Organic and Farm Fresh to You; Genevieve Albers, Traditional Medicinals; Karen Archipley, Arch’s Acres; Grant Brians, Heirloom Organic Gardens; Rich Ferreira, Side Hill Citrus; Esteban Macias, Grupo U; Brad Samuelson, Corinjie; Renee Thresher, Lundberg Family Farms; Jutta Thoerner, Manzanita Manor Organics; Ted Watson, Eel River Brewing; Steve Zantlsey, SZ Ranch

CCOF Certification Services, LLC
Management Committee
Cathy Calfo, Chair, CCOF, Inc.; Charles Fowler, Fowler Ranch (retired); Jenneke de Jong, Boranza View Dairy; Brad Samuelson, Corinjie; Tom Willey, T&D Willey Farms

CCOF Foundation Trustees
Cathy Calfo, Chair, CCOF, Inc.; Lee Atter, Ph.D., CSU Chico College of Agriculture; Karen Archipley, Arch’s Acres; Allen Harthorn, Happos Organics; Phil LaRocca, LaRocca Vineyards; Malcolm Rico, Bolthouse Farms

Magazine Production
EDITOR-IN-CHIEF Laura Mathias
SENIOR EDITOR Rachel Witte
ART DIRECTION/DESIGN Sarah Watters

Certified Organic magazine is published quarterly by CCOF and serves CCOF’s diverse membership base and others in the organic community, including consumers and affiliated businesses. Letters to the publisher should be sent to marketing@ccof.org. CCOF reserves the right to edit or omit submissions and letters received. For more information, contact CCOF, Inc. at marketing@ccof.org.

Advertising
For over 40 years, CCOF has been a trusted source of information on organic farming and food production. Our information resources include full-color publications and online media targeted to all segments of the organic sector throughout the United States and beyond. For more information, visit www.ccof.org/advertise or contact advertising@ccof.org.

MAGAZINE AD DISCLAIMER
CCOF appreciates the gracious support of advertisers who make this publication possible. However, paid advertisements featured in this magazine have been provided by the advertising company and do not necessarily reflect a certification status of the company or products advertised. CCOF does not endorse or guarantee the quality or approved status of any materials, products, or services. Please direct questions regarding authenticity of advertised products and services to the advertiser. CCOF reserves the right to refuse advertisements deemed inappropriate.

For every pound of paper used to print this edition of Certified Organic, an equivalent number of trees are planted through Trees for the Future, an organization dedicated to planting trees with rural communities in the developing world, enabling them to restore their environment, grow more food, and build a sustainable future. Our American-made paper contains post-consumer recycled material.

ISSN 1940-8870 © CCOF 2018
Bio With Bite.

REGALIA
BIOFUNGICIDE

STARGUS®
BIOFUNGICIDE

MAJESTENE®
BIONEMATICIDE

VENERATE®
BIOINSECTICIDE

AMPLITUDE™
BIOFUNGICIDE

GRANDEVO®
BIOINSECTICIDE

Marrone®
Bio Innovations

marronebio.com
Growing the Future of Organic

Many thanks to the Clarence E. Heller Charitable Foundation and the Patagonia Foundation for joining the CCOF Foundation to publish Roadmap to an Organic California: Benefits Report—the most recent and up-to-date compilation of peer-reviewed research documenting the economic, social, and environmental benefits of organic agriculture. By projecting how these benefits would accrue if Californians were to increase organically farmed land from 4 percent to at least 10 percent in the years ahead, we hope that organic advocates, policymakers, and others will be more inspired than ever to grow organic agriculture.

As research fellow Laetitia Benador points out in this issue’s feature, “More than ever before, policymakers need broadly supported, bipartisan strategies to address the nation’s economic, environmental, and social challenges.” Roadmap to an Organic California: Benefits Report—which will be released next year and will make the case that increasing organic acreage will benefit the state—is designed to be a catalyst for action and to provide policy models that will be embraced by communities across the United States and beyond.

During 2019, the CCOF Foundation will explore four policy areas to include in the second phase of the project, Roadmap to an Organic California: Policy Report:

- Strengthening market opportunities to increase demand for California-grown organic crops and products
- Promoting a regulatory framework that incentivizes organic farming
- Maximizing the benefits of organic farming systems to socially disadvantaged communities

Roadmap to an Organic California underscores the importance of organic and will provide concrete policy proposals to advance organic agriculture and to support farmers.

These reports will also stand on the shoulders of CCOF’s 45 years of leadership in the arena of organic certification and would not be possible were it not for the experience, wisdom, and success that the organization has gained over those years. Much appreciation goes to all who have worked so hard to open the next chapter on organic, for California and beyond.

We hope you will join us to discuss these ideas—and others about growing the future of organic—at Organic Generation—The Next Era, our 2019 Annual Meeting and Conference in Fresno, California on February 26 and 27. Learn more at www.ccof.org/2019-event.

Issue Contributors

The Benefits of an Organic California, Page 26

Laetitia Benador spearheads the CCOF Foundation’s Roadmap to an Organic California project as the CCOF research fellow. She is a researcher, writer, and farmer focused on systemic causes of social injustice. Benador lived and worked on organic and biodynamic farms in California and Oregon, where she experienced farming systems and economic models that work for all life, allowing her to reimagine the possibilities for creating a just world. She graduated from the University of California, Berkeley with a bachelor’s degree in political economy, focusing on the intersection of global economic development, inequality, and agriculture. Besides her love of farming, she has a fervent adoration for all things cheese, a taste probably acquired when her Swiss parents put fondue in her baby bottle.
Our staff of Certified Agronomists are available to develop a Fertilizer Program including Nitrogen Budgeting to fit your economic budget, food safety plan and/or crop quality requirements. We are Certified Crop Advisors and are very skilled in organic crop nutrition.

If you are experiencing low yields, poor crop quality, soil health issues, excessive nitrogen usage or costs, or plant disease problems, give us a call. We can help.

COFI offers free consultations, custom nutrient planning and in-field evaluations for all crops from alfalfa to zucchini.
CCOF Annual Meeting and Conference: Organic Generation - The Next Era

Save the date for CCOF’s 2019 Annual Meeting and Conference on February 26-27 in Fresno, California. The conversation at this year’s event will focus on the next era of growth for organic and future generations of organic producers and consumers.

Who will be the organic producers and consumers of the future? What opportunities lie ahead for organic? Where will organic production rise? How will organic adapt to embrace new technologies, skills, and markets? We hope you will join us in Fresno to add your unique perspective and voice to the discussion.

Alice Waters, chef, author, and food activist, founder and owner of Chez Panisse, and founder of the Edible Schoolyard Project will join us this year as the keynote speaker. You won’t want to miss the insight she brings as a veteran of bringing organic to different audiences and generations. Attendees will also hear from investigative journalist and author of Whitewash, Carey Gillam.

The event will bring CCOF members and supporters from across North America to Fresno, California, home to generations of organic farmers. There, the program will examine the ongoing rapid growth of organic and explore the predicted future for the sector. Get more details about the event agenda and who will be speaking at www.ccof.org/2019-event.

Join us the evening before the conference for a dinner and celebration of this year’s Organic Champion Awardee: Organic Valley’s Farmers Advocating for Organic. This festive meal with organic friends is always a highlight of the two-day event—you won’t want to miss it.

The CCOF Annual Meeting and educational conference is an annual tradition that convenes the CCOF membership and supporters to celebrate successes and plan for the future of organic. The conference also benefits the programs of the CCOF Foundation: the Future Organic Farmer Grant Fund, the Organic Training Institute, the Bricmont Hardship Assistance Fund, and our consumer education programming.

We hope you will join us to share your voice. Register today at www.ccof.org/2019-event.

Another Successful Organic Grower Summit

CCOF and the Organic Produce Network (OPN) celebrated another successful year hosting the Organic Grower Summit in Monterey, California on December 12 and 13. This year’s event featured exciting activities including the CannaBus Tour.
Costco-sponsored “Meet the Grower” networking event, and educational sessions with key industry leaders.

The event started with a sold-out CannaBus Tour on Wednesday. The tour was an exclusive opportunity to take a behind-the-scenes look at the Monterey County cannabis industry. Attendees got a firsthand view of a state-of-the-art indoor cannabis growing operation and Indus, a vertically integrated cannabis extraction and manufacturing facility.

Sessions at this year’s Organic Grower Summit ranged in topics from discussions around technology and its role in both large and small farms, plant health in organic production systems, and growth in the organic beer and wine sector. Attendees enjoyed hearing from industry experts and long-time organic growers.

A highlight of the event was the riveting keynote address from John Foraker, Once Upon a Farm co-founder and CEO. Foraker, one of the most accomplished and respected executives in the organic industry, co-founded the organic, cold-pressed baby food company in 2017. Prior to beginning his new startup, Foraker spent more than 30 years in the natural and organic food industry running businesses with a sharp focus on sustainability and social responsibility. Foraker shared the story of how co-founder and actress, Jennifer Garner, converted her mother’s fallow farmland in Oklahoma to an organic farm and championed organic baby food as a busy mom herself. He also detailed how cold processing makes the difference with his line of baby food, from the vitamin content to the look of the final product.

In conjunction with the Organic Grower Summit, the CCOF Foundation celebrated another year of growing organic at the “We Are Organic” dinner, which kicked off the summit. Nearly 250 dinner guests enjoyed the music of rising Nashville star Sophia Scott during their all-organic feast. Rhyne Cureton, a 2018 CCOF Foundation Future Organic Farmer Grant Fund recipient, impressed the crowd with his knowledge and passion for organic pig farming and pasture-based production practices.

Organic Valley’s Vice President of Farmer Affairs Travis Forgues shared his thoughts on the hard times that have befallen the organic dairy industry but reminded all listening that students like Cureton provide him with hope for the future of organic. Offering an inspiring call to continue the momentum built by the CCOF Foundation programs, Forgues and Cureton illustrated the strength that many individuals bring to the success of the organic farming community.

CCOF and OPN are very grateful for the generous support of sponsors who make this event possible.

-------------------

CCOF Member Discount with the Organic Trade Association

The Organic Trade Association (OTA) is a membership-based business association for the organic community in North America. OTA has a crucial presence in Washington D.C. and is influential in the development of federal organic policies. OTA’s members work together through networking, advocacy, and other initiatives to encourage and protect farming practices and to share the benefits of organic with consumers, media, and policymakers. Working together with OTA allows CCOF to join with other farmers, processors, handlers, and stakeholders to advocate nationally for the organic principles we all share.

Through a special partnership with OTA, CCOF certified members receive a new member discount of 25 percent for their first year. An OTA membership provides access to OTA market research, expert guidance on organic regulatory issues, and news affecting your organic business. In addition, members can participate in advocacy efforts on Capitol Hill and other direct influence on elected officials.

Learn more about becoming an OTA member at www.ota.com/membership/become-member.
OUR JOB IS HELPING YOU GROW

As a farmer, you get that it’s about unknowns. As your procurement partner, we get that it’s about value. HarvestPort finds the right inputs at the right prices, to help you plan for those unknowns. We handle the shopping, so you can handle the farming.

Increasing farm income through a Collaborative procurement network

HARVESTPORT TO REIMBURSE FULL COST OF 2019 ANNUAL RENEWAL BILL FOR ALL CCOF MEMBERS.

Must purchase inputs or services via HarvestPort prior to 4/01/2019

EMAIL INFO@HARVESTPORT.COM TO LEARN MORE

At HarvestPort, we support organic farming because:

PASSIONATE FARMERS • INCREASED BIODIVERSITY • ORGANIC HELPS OUR ENVIRONMENT • FAMILY-FRIENDLY • BETTER SOIL HEALTH • LESS TOXINS • COLLABORATIVE • PLANETARY HEALTH • SUSTAINABLE • FARM IN HARMONY • DIVERSITY • SLOW CLIMATE CHANGE • BACK TO THE BASICS • INVESTING IN FUTURE GENERATIONS • NO HARMFUL CHEMICALS • SAFER FOR FARM WORKERS • BENEFICIAL TO LAND WATER AND LOCAL HABITAT
Wine With an Eye to the Future

Based in Ukiah, California, Parducci Vineyards is a family-run winery and farming operation that operates with the philosophy of “Leaving things better than we find them.” As a testament to this philosophy, Parducci operates a 100 percent green-powered winery, a nationally recognized water conservation and reclamation program, a wildlife habitat preserve, and a thriving 15-acre farm that provides organic produce for Parducci employees, local restaurants, markets, and a new pop-up farm stand.

Every bottle of estate-grown Parducci wine starts in the vineyards, farmed with a blend of organic cultivation practices and innovative new technologies. The use of cover crops, integrated pest management, and owl boxes sets the stage for balance and biodiversity in and around the vineyard. Tensiometers measure soil moisture, helping to ensure that vines are irrigated efficiently for the grapes’ truest expression and complexity.

The winery has an 80-year legacy of crafting artisan wines with a reputation for quality, value, and care for the local community of Mendocino. As Parducci’s Chief Operating Officer Tim Thornhill states, “Our effort in conservation is really what I would call ‘moving forward to the past.’ It’s more of the way my grandparents would farm.”

As a trailblazer in Mendocino County, the award-winning water reclamation and conservation program at Parducci is gravity-fed and uses less energy than industry standards with far better water quality. The water reclamation and conservation program captures, treats, and reuses 100 percent of the water used in the winery and is internationally recognized for its innovation and greatness. Awards received by the winery include the 2007, 2010, and 2014 Governor’s Environmental and Economic Leadership Awards and the 2011 Botanical Research Institute of Texas International Award of Excellence in Sustainable Winegrowing. Wastewater once flowed freely from Parducci’s drains; now Thornhill has designed and implemented a progressive system of making wine that does not waste clean water and has minimal impact on the local watershed and environment.

The Parducci wetlands are not only peaceful and pleasing to the eye, but they also support habitat for a diverse range of wildlife. Migratory ducks and geese, egrets, raptors, owls, hawks, herons, sandpipers, killdeer, swallows, otters, fish, turtles, and dragonflies can be observed throughout the year. The many species add to the overall health of the nearby vineyard by providing biodiversity and a natural system for managing vineyard pest populations. Parducci is also a Certified Wildlife Habitat, which means the winery estate and wetlands provide a critical refuge for local and migratory species. As many species face the threat of dwindling habitat due to monoculture or ineffective pest management, this certified habitat is replenishing vital resources for all wildlife neighbors.

In 2012, Thornhill chose to convert fallow land on the Parducci property to an on-site, self-sustaining farm. Thornhill views land as a precious resource, and now, the once-unused 15 acres are a thriving organic farm made up of a one-acre orchard, two acres of vegetables, and twelve acres of pastureland all managed by Jess and Erin Arnsteen. During peak harvest, the

WRITTEN BY Drake Bialecki  PHOTOS © Parducci Vineyards
Marthedal Enterprises, Inc. via Instagram:
Fresh California blueberries starting their journey across the sorting line.

Eco Terreno Wines via Instagram:
A resident jack rabbit checking himself in the vineyard stealth cam before heading out on his Monday grind. #mondays #dailygrind #wokeuplikethis

Cosmic Apple Gardens via Instagram:
One of the reasons I moved here, my love for these mountains, and one of the reasons I stayed. Some of the best food ever. Cosmic Mix, Cosmic Tomatoes, (yay!!!) and Larks Meadow blue cheese. #cosmicapple #biodynamic

The Parducci commitment to conservation and community translates to high standards in the vineyard, winery, and farm. This is evident in the successful farming operation, the wildlife habitat preservation, and the nationally recognized water conservation and reclamation project. While Parducci Vineyards continues to be family-owned and operated, it is clear that the Thornhills are dedicated to growing premium organic wine grapes and crops and crafting artisan wines for many generations to come.

For more information about Parducci Wine Cellars, visit www.parducci.com, or visit their tasting room, vineyards, and farm in Ukiah, California.

Organic and Biodynamic Wine in the Yakima Valley

The Yakima Valley in Eastern Washington is home to over 120 wineries and more than 17,000 acres of producing vineyards. This region is also the stomping ground of Paul Beveridge, founder of Wilridge Vineyard, Winery & Distillery. Wilridge Winery has been operating since 1988, and in 2007 Beveridge planted his own vineyard, which has been certified as both organic and Biodynamic from the start. Wilridge Vineyard, Winery & Distillery is currently one of two vineyards/wineries in Washington State that hold these dual certifications. In 2018, Wilridge Vineyard, Winery & Distillery joined CCOF for
their organic certification. They continue to maintain their Biodynamic certification through Demeter USA.

I asked Beveridge what makes the Yakima Valley unique when it comes to growing wine grapes. He explained that it’s one of the easiest places to grow grapes organically and went on to describe some of the many advantages of the region: the Yakima Valley has two more hours of sunlight during the summer months than most other winegrowing regions in the United States, they don’t have issues with rain ruining their crops (which is key during harvest time), the cooler temperatures create better acidity in wines, and they are located along the same latitude as some of the finest winegrowing regions in France. According to Beveridge, “If you have access to irrigation, you’re set.”

Wilridge Vineyard is a premier recreational vineyard that is open to the public and provides over 80 acres of vineyards, orchards, hiking trails, areas to rock climb, and all-around natural beauty. You may even be lucky enough to find your favorite food truck or catch live music on their lawn during the spring and summer months! In addition to their organic and Biodynamic certifications, the winery is also Salmon-Safe certified, utilizes solar power, and is dedicated to reducing their carbon footprint by whatever means possible. It is apparent when talking with Beveridge that he takes pride in producing wines and spirits that enhance the health of the environment from the ground up.

Wilridge Vineyards’ 15 acres of organic and Biodynamic wine grape production consists of 23 varieties, which Wilridge Winery uses to craft 17 different estate wines. They also source grapes from other certified vineyards in the region to make additional non-estate wines. In all, they offer 32 varietals under the Wilridge brand.

In 2017, Wilridge expanded into operating an artisanal brandy distillery. Clear brandies (direct from the still) and brandies aged in oak barrels are distilled from grapes, apples, and pears from their own estate and nearby orchards. Their Estate Grappa di Nebbiolo, or grape-based brandy, is made from the pressings of red and white grapes, a waste product that would otherwise be composted.

Beveridge describes their wines as European in character. They have a lower alcohol content than many wines currently on the market and are a very different style than most of the wines grown in California. Beveridge believes that some of the best wines in the world are coming from Biodynamic wineries and “for a wine lover, it’s a great shorthand for knowing you have a good wine.” Biodynamic wines appeal to environmentally conscious consumers, especially in Europe where Biodynamic principles are more widely understood.

When asked what the next steps are for his business, Beveridge described plans to expand their vineyard acreage to allow for more oversight throughout the production process. There is also a new label in the works that will emphasize their growing practices. They are also looking into national distribution options, which is tricky since each state has its own set of regulations surrounding the sale of alcohol. For now, the focus will remain on selling products direct to customers at their Yakima location, farmers’ markets, and tasting rooms in the Seattle area.

To learn more about Wilridge Vineyard, Winery & Distillery, visit www.wilridgewinery.com.
30 Years Later: How the Grateful Dead Saved CCOF

When I asked Grateful Dead drummer and co-founder Bill Kreutzmann what he thinks is the cause of consumer confusion in the marketplace regarding organic labeling, he responded with a question of his own: “How could there be confusion? Organic means no pesticides, no herbicides, and no sulfur if you’re a grape grower.” I took a sip of the organic green tea Kreutzmann offered me at the start of our interview, and with a gentle smell of incense burning nearby, proceeded to my next question.

In the winter of 1988, the Grateful Dead had already spent decades playing to sold-out crowds across the globe. They’d played alongside Pete Townshend and the Who at Woodstock. They’d befriended Hells Angels, playing free concerts to hippies who happily danced alongside leather-clad bikers. They’d played European tours, performed at the Egyptian pyramids, and left a lasting mark as cultural icons that epitomized a time of free love and consciousness expansion.

Paying their success forward, this group of Bay Area-born musicians had the foresight to give donations not only to international nonprofits like the Seva Foundation and the Rainforest Alliance, but also to CCOF, which hadn’t yet (as CCOF’s first employee Mark Lipson says) “catapulted from soft altitude into the stratosphere.” Guitarist and singer Jerry Garcia had a taste both for French fries and CCOF-certified Molino Creek dry-farmed tomatoes. Until now, the story of how the Dead saved CCOF from bankruptcy over 30 years ago has only been told in the company of friends as a quaint footnote on CCOF’s ever-evolving history.

In the 1980s, the Grateful Dead were more interested in creating music than they were in eating organic. Yet, when approached by CCOF with a request for $10,000, they unanimously agreed to donate. While reminiscing last July at the Shoreline Ampitheater in Mountain View about the donation, Kreutzmann said, “Isn’t that great? This is why we did it. It’s nice to wait and see so much time go by, and see something come to fruition, to make it this far. It only took CCOF $10,000 dollars; it’s amazing. And here you are today!”

“The Grateful Dead donation did, in fact, by and large save CCOF,” says Bob Scowcroft, CCOF’s first executive director. “It had been months since CCOF had paid its employees. We hadn’t filed taxes since 1985, we were past due to pay rent, and there would be no foreseeable money coming in until June, when farmers paid their assessment fees.” All this information came to Scowcroft before his first day on the job from Lipson. “It was like, ‘Welcome to CCOF!‘” Scowcroft jokes. Luckily, CCOF employed a few well-connected Deadheads, leading to a remarkable solution to their financial woes.

Lipson is one such Deadhead. When I asked Lipson to tell us his favorite Dead song, he politely told me, “Never ask a true Deadhead that question.” Lipson’s comprehensive understanding of the dynamic organism that was the Grateful Dead was the driving force behind CCOF’s big ask. Lipson reached out to his pal Cameron Sears, Grateful Dead’s manager at the time and current president of the Rex Foundation.
FULL SERVICE
ORGANIC PROVIDER
- Organic Dry/Liquid Fertilizers and Bio Stimulants
- Cover Crop and Beneficial Habitat Seed
- Organic Plant Protection Products
- Qualified Licensed Consultants at Each Branch

ag.wilburellis.com

Find your local specialist at locations.wilburellis.com

WILBUR-ELLIS
Ideas to Grow With

INTREPID Trio

Essential Minerals For
Certified Organic Farms

Higher Yields. All Natural. Better Quality.

Call 1.800.451.2888 or learn more at intrepidtrio.com

www.ccof.org
Knowing of Garcia’s taste for Molino Creek tomatoes, Lipson asked Sears if the Dead would donate $10,000 to CCOF, and thereby propel the organic movement forward. As Kreutzmann recalls Sears’ pitch, “This just sounded like such a great idea, and we went for it, we voted for it. We voted on that stuff as a band.”

Now, over 30 years later, Kreutzmann (whose father once lived on a five-acre farm off Branciforte Road in Santa Cruz County) and his wife Aimee live at Four Winds Farm in Kauai. At the start of our interview, Kreutzmann announced, “I’m all about organic now. I don’t eat anything else, if I can help it. It’s actually a problem on the road because you order from room service now and then and it’s not quite that good. But you go home and you make up for it.” In his autobiography, Deal: My Three Decades of Drumming, Dreams, and Drugs with the Grateful Dead, Kreutzmann writes, “Jerry and I made a promise that if the Grateful Dead ever ended, we would both move to Hawaii, get healthy, and live a much different lifestyle.” While Garcia never got to realize that dream, Kreutzmann did, and he makes the most of each beautiful day on the farm.

Kreutzmann appears as passionate about organic farming as he is about playing music. He lights up when talking about his land, Kauai, and all the creatures that live there. “Organic farming goes along with loving animals. There’s some wonderful connection there that I don’t try to attempt to understand.” The fauna on Bill and Aimee’s farm includes cows, monarch butterflies, and a pet chicken named NayNay. The Kreuztmanns’ black Labrador, Lucy, loves to play chase with the sheep and the farm goats (or, as Aimee calls them, “little thieves of your heart”). Bill loves talking about Lucy’s relationship to the other animals on the farm. “Lucy’s this gorgeous, beautiful, strong dog, and she goes up to the head male sheep, Ramsy, and licks him! They have a licking thing sort of. You see the interspecies relating like that, and it’s really cool!”

Kreutzmann claims his interest in farming was born in Hawaii. “I didn’t get into farming, honestly, until I moved to Kauai. As soon as I moved to Kauai, I couldn’t help myself.” He goes on. “You had to farm; you had to do something. I started out in Kapa’a, Hawaii. Right around the front of my house I had a little 3-by-40-foot-long white garden bed, and I planted Impatiens.” Aimee stops us to laugh lovingly at her husband’s first plant choice. Kreutzmann continues, “I just wanted to plant something and watch it grow. And the nice thing about Impatien is that you can be impatient and they grow fast! But I just wanted to grow. I moved to another place on Moalepe, which is about a mile from our existing farm, and everything I planted there just, poof!” He makes an exploding motions with his hands, explaining that his plants “went crazy and I actually had a small lettuce farm there too, an organic lettuce farm [formerly known as Grateful Greens].”

“In Hawaii, we say ‘Malama ‘aina’ which means ‘love for the land,’“ Aimee told us. And when you talk to any organic farmer, the love they have for the land they tend is overwhelmingly apparent. We often forget the inherent beauty of our natural world, getting caught in varying cultural narratives that, while important, have the potential to tear our attention away from the bountiful harvests that continue to feed us. We forget the power of healthy soil, nourished, tilled, and attended to by blister-heavy hands. But no matter how many callouses grace the fingertips of our dedicated organic farmers, they forever retain a softness that comes only from their true love of organic.

Despite Kreutzmann’s self-assessment as a newer farmer, the CCOF Foundation reminded him that he and the Grateful Dead became farmers long ago, when they planted life-giving funds into CCOF. While patience was needed to see this seed through to its full evolution, its growth was worth the wait. Today, CCOF not only certifies almost 4,000 organic producers, but we’ve been able, like the Dead, to begin our own journey of giving back.

“We’ve only just begun scratching the surface of our capacity to effect change in our communities.

CCOF thanks the Grateful Dead for their donation to us over 30 years ago, and for joining us on this long strange trip. We can’t wait to see all that’s yet to be revealed.

A special thanks to Bill and Aimee Kreutzmann, Jacob Morton, and Chris Fenn for making this interview possible.
The scientific explanation.

**Reduction of surface tension**

OROBOOST® reduces tension of pesticide droplets to deliver more droplets in more uniform sizes to leaf surfaces. When applying contact pesticides this more complete coverage eliminates the risk of leaving areas untreated that could result in reduced control.

**Increased penetration of systemic pesticides**

At higher label rates, the proprietary OROWET® technology in OROBOOST softens the waxy protective lipid-containing structures to improve penetration of the pesticide solution on plants and insects for better pesticide performance.

**Improved translocation**

OROBOOST, with proprietary TransPhloem® technology, accelerates the movement of systemic pesticides and foliar nutrients into a plant's phloem for rapid translocation throughout the plant for improved efficacy.

**Benefits of OROBOOST include:**

- WSDA Certified Organic Material
- Contains proprietary, patented OROWET and TransPhloem technologies
- Superior spreading, wetting and penetrating properties
- Enhanced rain fastness due to superior cuticle penetration
- Increases efficacy of pesticides and foliar nutrition programs

Learn more at oroagriusa.com

**Table: Ag Limestone vs LoMg Dolo**

<table>
<thead>
<tr>
<th></th>
<th>Ag Limestone</th>
<th>LoMg Dolo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>640 lbs/ton</td>
<td>480 lbs/ton</td>
</tr>
<tr>
<td>Magnesium</td>
<td>&lt;40 lbs/ton</td>
<td>140 lbs/ton</td>
</tr>
<tr>
<td>Sulfur</td>
<td>No Unnecessary S</td>
<td>No Unnecessary S</td>
</tr>
</tbody>
</table>

Visit us online or Call 209-533-0127 x12 for more information.

Harvest removes indispensable nutrients from the soil that must be replenished. When optimum Calcium levels are reached, soil structure is enhanced, healthy cell wall development happens and crop production profits. Test your soil, get the aglime on.

**Harvest Nutrient Information:**

- Calcium 640 lbs/ton
- Magnesium <40 lbs/ton
- Sulfur No Unnecessary S

Visit us online or Call 209-533-0127 x12 for more Information.
The scientific explanation.

**Reduction of surface tension**

OROBOOST® reduces tension of pesticide droplets to deliver more droplets in more uniform sizes to leaf surfaces. When applying contact pesticides this more complete coverage eliminates the risk of leaving areas untreated that could result in reduced control.

**Increased penetration of systemic pesticides**

At higher label rates, the proprietary OROWET® technology in OROBOOST softens the waxy protective lipid-containing structures to improve penetration of the pesticide solution on plants and insects for better pesticide performance.

**Improved translocation**

OROBOOST, with proprietary TransPhloem® technology, accelerates the movement of systemic pesticides and foliar nutrients into a plant’s phloem for rapid translocation throughout the plant for improved efficacy.

Benefits of OROBOOST include:

- WSDA Certified Organic Material
- Contains proprietary, patented OROWET and TransPhloem technologies
- Superior spreading, wetting and penetrating properties
- Enhanced rain fastness due to superior cuticle penetration
- Increases efficacy of pesticides and foliar nutrition programs

Learn more at oroagriusa.com

OROBOOST, OROWET & TransPhloem are proprietary trademarks of Oro Agri Inc.
Always read and follow label directions.
Protect Your Farm From Overwintering Pests

Prevent Plant Damaging Pests By Using OMRI Listed Beneficial Nematodes

Apply To Soil For Control Of Target Insects:

- Beetles & Grubs
- Flies
- Fungus Gnats
- Leafminers
- Rootworms
- Thrips
- Weevils
- Worms & more!

Get 10% Off Your Order
Use CCOF1018 for 10% off your order of $150 or more. (Some restrictions apply.)

CALL FOR FREE CATALOG

Biological Pest Control
Natural Pesticides
Disease Control

© 2018 ARBICO Organics™. All Rights Reserved.
Investing in the Climate Solutions of California’s Farmers and Ranchers

Are you interested in installing hedgerows or doing riparian restoration on your farm but feel the upfront costs are too high? Are you transitioning to organic and could use some financial support to replace nitrogen fertilizers with compost or cover crops? Do you have dairy pastures you’d like to expand or rangeland improvements you want to make? Have you considered an easement on your farm to protect it permanently for agricultural use?

You could be eligible for funding from the state of California, which has launched a suite of Climate Smart Agriculture grant programs to fund projects like these and many others. The programs have already given out hundreds of millions of dollars in grants for practices that save water and energy on farms, protect agricultural lands at risk of development, increase carbon storage in soil and woody plants, and reduce potent methane emissions on dairies.

California has set some of the world’s most ambitious climate and clean energy goals, and it began a cap and trade program several years ago as one strategy for reaching those goals. Revenue from the program is being invested in a range of programs throughout the economy that give incentives for projects and activities that reduce greenhouse gas (GHG) emissions—including agricultural programs.

The Climate Smart Agriculture programs are the first of their kind in the country. They include:

- Sustainable Agriculture Lands Conservation Program (SALCP) – Invests in farmland conservation for its climate benefits (i.e., grants for permanent agricultural easements)
- State Water Efficiency & Enhancement Program (SWEEP) – Provides grants for on-farm improvements that both reduce GHG emissions and save water (e.g., for efficient irrigation, solar pumps, water catchment, and more)
- Healthy Soils Program – Provides grants to promote soil health improvement as a strategy to reduce GHG emissions and sequester carbon (e.g., using compost and mulch application, cover crops, hedgerows, prescribed grazing, and more)
- Alternative Manure Management Program (AMMP) – Provides grants to dairy and other livestock producers to implement manure handling and storage strategies that reduce methane emissions (e.g., switching from flush systems to dry scraping, composting, or pasture-based dairying)

These programs are having real impact. As of mid-2018, farmers and ranchers funded by more than 800 grants put practices in place that collectively reduce GHG emissions by more than 42 million metric tons of carbon dioxide over the life of the projects, equal to removing more than nine million cars from the road for one year. Read some of their stories at www.calclimateag.org/farmer-stories.

There are other benefits that go beyond slowing climate change. Increasing the organic content of soils can improve fertility, increase water penetration and retention by turning soils into sponges, and make farms more resilient to drought, flooding, pests, and diseases. Reducing or eliminating synthetic fertilizer inputs by using compost, mulch, and cover crops reduces air pollution and nitrogen leaching into waterways. Wildlife and pollinator habitats can be enhanced with conservation planting, and managed grazing can improve rangeland biodiversity and ecosystem resilience.

Organic producers are no strangers to these practices or their multiple integrated benefits. And there is solid science demonstrating that organic farming systems can have smaller carbon footprints than their conventional counterparts when all energy inputs are considered, with up to 30 percent less embedded energy and therefore lower net GHG emissions. While there is considerable variability between farms, studies have found that soils under organic management sequester more carbon than non-organically managed soils.

The Healthy Soils Program awarded 27 percent of its first grants in early 2018 to certified organic farmers, a disproportionately high participation level considering that only 3.5 percent of all California farms are organic. We hope this leadership from the organic community continues.

The application period for the next round of Healthy Soils and SWEEP grants will likely be open from December 2018 into January 2019. Grants for all four Climate Smart Agriculture programs are made on a rotating basis annually. To get announcements about upcoming deadlines, sign up for the California Climate and Agriculture Network (CalCAN)’s weekly newsletter at www.calclimateag.org/joinus. We would love to hear from you about your experiences with these programs. The voices of farmers make a difference in their continued funding and improvement. To share your story with us, contact us at info@calclimateag.org.

CalCAN is a statewide coalition that advances policy to realize the powerful climate solutions offered by sustainable and organic agriculture. CCOF is a founding member of the CalCAN coalition.
If we are what we eat, isn’t it time we start thinking about what they eat?

The Only Sensible Choice...

ORGANIC FARMS
FERTILIZERS

Forward by design.

Harnessing the power and potential of tomorrow, starts with the same partner you’ve trusted for years. Formerly serving you as Crop Production Services, your Nutrien Ag Solutions™ retail location can now deliver even greater reliability and unparalleled resources to bring your vision into focus. Helping you transform every operational challenge into another chapter of triumph. nutrienaqsolutions.com
**NOSB and NOP Discuss Oversight and Origin of Livestock at St. Paul Meeting**

In late October, the National Organic Standards Board (NOSB) met in St. Paul, Minnesota to review materials on the National List of Allowed and Prohibited Substances (National List) and make regulatory recommendations. The board is comprised of 15 volunteers representing the entire organic sector and is appointed by the United States secretary of agriculture.

NOSB makes their recommendations through a transparent process. The board releases meeting materials before each meeting, and stakeholders and members of the public are invited to submit written and spoken comments to the board to help inform recommendations and discussions.

CCOF submits both written and spoken comments to the board for each NOSB meeting cycle. The comments advocate for strong, clear, and enforceable organic standards. In the comments, CCOF submits information on how proposed changes may affect CCOF members and also helps members submit their own public comments.

**National Organic Program (NOP) Update**

The NOP presents an update on the program at each NOSB meeting. In St. Paul, the update focused on NOP efforts to increase oversight in the global organic supply chain. NOP also gave previews of new mapping tools to track where certified operations are located and the Organic Integrity Learning Center, an online resource to provide training, professional development, and continuing education for organic inspectors and certification staff.

The NOP’s work plan is focused on four topic areas:

1. Strong organic control systems through trusted people, processes, and rules
2. Farm-to-market traceability through worldwide supply chain integrity
3. Robust enforcement with a level playing field for all
4. Support for the standards and collaboration with community through engagement and transparency

The NOP is working on various initiatives within each topic area. For example, in fiscal year 2018 NOP launched a new electronic export certificate system, began a dairy compliance project, and looked at adding additional staff for compliance and enforcement actions. The entire presentation can be read online at goo.gl/rbgrrB.

**Origin of Livestock Takes Focus**

At each NOSB meeting, the board receives hundreds of comments for consideration on a wide array of topics on and off the meeting agenda. In St. Paul, several stakeholders commented on the origin of livestock rule when discussing the state of organic dairies and organic compliance.

In 2015, the NOP released a proposed rule on the origin of livestock standards to clarify the transition of dairy animals into organic production. The proposed rule was the result of several recommendations from NOSB and an audit report showing that certifiers were interpreting the origin of livestock standard differently from one another. Despite stakeholder interest and support, USDA removed the rule from its regulatory agenda in early 2017, terminating the rulemaking process.

At the NOSB meeting the board unanimously passed a motion urging the secretary of agriculture to “directly issue a final rule for Origin of Livestock that incorporates public comments submitted in response to the proposed rule.”

CCOF submitted thorough comments on the proposed rule in 2015 and supports its implementation. Strong and consistent standards strengthen the integrity of the organic label and consumer confidence in organic products.

In response to the discussion and motion, Dr. Jenny Tucker, deputy administrator of the NOP, recommended that stakeholders submit letters to the secretary of agriculture and other USDA leaders in support of continuing the rulemaking process on origin of livestock. In early December, 14 CCOF livestock members signed and sent a letter in support of the rule.

**Up Next for the NOP and NOSB**

The NOP is preparing to release a proposed rule on strengthening organic enforcement in spring 2019. The rulemaking will cover a variety of topics including operations excluded from organic certification, non-retail labeling, unannounced inspections, appeals and noncompliance processes, and more. CCOF will submit written comments on the proposed rule when it is released.

The next NOSB meeting will take place on April 24 through 26, 2019 in Seattle, Washington. The board will begin the 2021 sunset review process on materials on the National List and also put together new discussion documents and proposals.

Further information on the proposed rule, developments on the origin of livestock rule, and details about the upcoming 2019 spring NOSB meeting will be posted on the weekly CCOF newsletter. Sign up at www.ccof.org/subscribe.
Liquid Salmon, Shrimp and Crab for diverse soil biology

Increases plant-available nutrients

Calcium from fish bone and shell

Amino acids chelate nutrients

Fish oil feeds beneficial fungi

Proven on thousands of acres

www.pacificgro.com
IF PLANTS WERE ROCKETS, THEN YES, THIS WOULD BE ROCKET SCIENCE.

Protassium+® sulfate of potash (0-0-50-17S) is the leading source of potassium for specialty plant nutrition. With less than 1% chloride and the lowest salt index per unit of K₂O, the result is quality crops and higher yields.

Benefits of Protassium+ include:

• Quality organic grades, OMRI certified
• Only U.S. producer
• Ready for shipment via truck or rail to a location near you

Visit ProtassiumPlus.com
THE BENEFITS OF AN ORGANIC CALIFORNIA
A Sneak Peek into the CCOF Foundation’s Groundbreaking Report

WRITTEN BY  Laetitia Benador

It is an exciting time for organic. A record number of Americans consume organic, the organic marketplace leads the food industry in growth, and a new generation of organic farmers is building highly productive farms and ranches.

But as climate change, overexploited water and soil resources, and species extinction—among other issues—threaten agricultural productivity, society faces many insecurities about the future. More than ever before, policymakers need broadly supported, bipartisan strategies to address the nation’s economic, environmental, and social challenges.

The CCOF Foundation’s Roadmap to an Organic California: Benefits Report, the first of a two-part report, reviews over 300 scientific studies to analyze how organic agriculture impacts a range of important issues that affect the flora and fauna, waters and soils, and current and future inhabitants of the United States.

The report finds that organic agriculture provides evidence-based solutions to the nation’s complex challenges by promoting healthy, carbon-storing soils while also driving strong economic returns and improving public health and prosperity.

What can organic agriculture do for America? Let’s take a dive into the research.
Is organic food better for us?

More and more scientific studies indicate that it is. Evidence shows that organic food is highly nutritious and has significantly lower levels of antibiotic-resistant bacteria and pesticide residues than conventional food.

Over the last decade, scientists have developed new tools to test for nutritional quality of organic foods compared to conventional foods. Six out of eight meta-analyses, which use statistical methods to detect trends in data from hundreds of nutrition studies, conclude that organic fruits and vegetables contain higher levels of a range of nutrients that impact human health, and two find no consistent difference.

Recent studies also find that organic animals’ grazing and forage-based diets result in healthier meat and milk fat composition than conventional animal products.

One meta-analysis of 343 nutrition studies found that an individual switching from a conventional to an organic diet would take in 20 to 40 percent more antioxidants, or the amount gained in one to two extra portions of fruits and vegetables, without increasing caloric intake.

Eating an organic diet also guards adults and children against exposure to pesticides, antibiotics, and hormones in food, and studies show that an individual can significantly reduce pesticide levels in one’s body by consuming even a partially organic diet.

Can organic farming protect public health?

Even off the field, synthetic pesticides have serious unintended consequences. Routine pesticide exposure impacts community members when pesticides enter their homes and communities, disproportionately increasing health risks for children.

Residents in agriculture-intensive regions have 69 times the risk of poisoning from exposure to pesticide drift than other regions. In California counties with the highest pesticide use, 36 percent of schools are exposed to agricultural pesticides applied within a quarter mile of the campus.

Numerous studies associate prenatal and childhood exposure to synthetic pesticides with developmental delays and cognitive problems, including Attention Deficit Disorder (ADD) and lower memory and intelligence as well as increased risks of diabetes, asthma, and autism spectrum disorders.

By not using synthetic pesticides, organic agriculture plays an important role in protecting children and families from harmful exposure in their homes, schools, and communities.

Can organic fight antibiotic resistance?

Bacterial resistance to antibiotics is causing a major global health crisis. As the largest user of antibiotics in the United States, conventional livestock production is causing multi-drug resistance in pathogens and reducing the effectiveness
of several classes of antibiotics used to treat both human and livestock infections.38,39

By raising healthy, grass-fed, antibiotic-free livestock,40 organic meat and milk production satisfies demand for animal products without contributing to antibiotic resistance.41,42

Not only do the organic regulations prohibit antibiotics and hormones43 but data also confirms that organic meat products are less likely to be contaminated with antibiotic-resistant bacteria than conventional meat products.44,45,46 For example, bacteria samples on conventional chicken sold in Maryland retail stores were resistant to five or more antibiotics, while organic chicken bacterial samples had nearly no antibiotic resistance.47

Are organic farms safer workplaces?

In conventional production, 900 synthetic pesticides can be used to manage pests, but organic producers can only use about 25 carefully reviewed synthetic materials, and only under restricted conditions.48

In a study of 89,000 American pesticide applicators and their spouses since 1993, scientists associated occupational pesticide exposure with numerous long-term health effects, including higher risks of numerous cancers such as prostate and ovarian cancer,49,50 bladder and colon cancer,51 stomach cancer,52 and lung cancer,53 as well as neurodegenerative diseases,54 adverse respiratory effects,55 and mental health disorders like depression.56

By prohibiting the use of synthetic pesticides, organic farms create less toxic workplaces and protect farmers and farmworkers from the adverse health effects of routine synthetic pesticide exposure.

How does organic create business opportunities?

The rapidly expanding organic industry—which grew 6.4 percent in 2017, well above the 1.1 percent growth of all food sales57—creates exciting opportunities for businesses from organic seed companies to organic food joints.

Organic food is becoming mainstream; organic products are available at nearly three out of four grocery stores nationwide,58 and the vast majority (82 percent) of U.S. consumers purchase organic food.

Farmers, food manufacturers, and other enterprises are taking advantage of the strong demand for organic products. California’s organic processed food sector grew 17 percent in 2017 to reach $11.65 billion, representing a significant contribution to California’s third-largest manufacturing sector—food and beverage processing—valued at $25.2 billion in 2012. Nationally, the organic beverage sector grew 10 percent in 2017, while organic condiments grew an impressive 18.9 percent, reflecting a growing consumer desire to avoid toxins and to know where food comes from.59

Consumer demand, along with 20 percent higher average crop and livestock prices,60 are important incentives for farmers to transition to certified organic production and contribute to profitable organic farm businesses across the country.61,62,63,64,65
Can organic create a new generation of farmers?

A higher proportion of new farmers are choosing to start organic farms rather than conventional farms, despite a decades-long decrease in farmers entering the U.S. agricultural industry.

The organic marketplace is driven by an economically, ethnically, and generationally diverse consumer base, whose demand for organic is propelling a new generation of farmers. From 2015 to 2016, the number of organic farms increased by 11 percent nationwide, following a two-decades long trend in organic farm growth.

Can organic agriculture contribute to prosperous communities?

As a nearly $50 billion sector of the U.S. economy, organic farms and businesses create jobs throughout the supply chain.

Communities gain job opportunities through the 42 percent of organic businesses that increased employment around the country in 2017, and agricultural economists calculate that areas with high levels of organic businesses have higher labor force participation rates and lower county-level unemployment rates.

Organic farms also tend to create more full-time, year-round employment opportunities for farmworkers, which increases wage security and family life stability. A secure job in one place allows farmworkers’ children to receive an uninterrupted education without changing schools and allows farmworkers to become part of the communities in which they live.

Finally, organic farms contribute to thriving communities through local food sales. Farms that sell locally buy most of their inputs and services from nearby businesses and spend proportionally more on local employment, which recirculates dollars within the community. While only 5.5 percent of the 2.1 million farms in the United States sell directly to consumers, 39 percent of organic farms sell directly to consumers.

With this in mind, it comes as no surprise that agricultural economists recently found lower county poverty rates and higher median household incomes in communities with high numbers of organic businesses.

Does organic farming help solve climate change?

Climate change is a major threat to American agriculture. High concentrations of greenhouse gases (GHGs), such as carbon dioxide (CO2), are contributing to new pest and disease pressures, unreliable resource availability, and weather extremes that negatively impact yields. Substantial evidence shows that by creating healthy soils that sequester carbon and reduce greenhouse gas emissions, organic food production is part of the solution.

In the most extensive study to date, Northeastern University scientists compared soils from 659 certified organic farms and 728 conventional farms. They found that organic farms across the United States consistently sequester more carbon than conventional farms.
Researchers at the University of California, Davis studying long-term cropping systems found that organic systems in California resulted in 14 times the rate of carbon sequestration of conventional systems; and that organic soils stored 131 percent more CO2 equivalents (a measure of GHG emissions) than conventional soils, which were net emitters of GHGs.86

Scientists report higher carbon storage and carbon sequestration in organic soils around the world, adding to mounting evidence that organic farming is an important strategy for mitigating climate change.87

Does organic agriculture improve soil quality?

The National Academy of Sciences reported in 2018 that fast-paced erosion of U.S. agricultural soils endangers national food security.88 Because agricultural practices like tillage degrade soil structure, farmed soils are vulnerable to being carried away by wind and water. When soil leaves the farm, built-up fertility and important nutrients such as carbon and nitrogen are lost, polluting waterways and jeopardizing agricultural productivity.

Scientific evidence shows that effective use of organic practices not only prevents soil from washing away, but also increases soil quality. By growing a diversity of rotating crops, reducing tillage, and increasing soil organic matter, organic farmers protect soil from eroding and build up soil fertility.89,90,91 The evidence is in: organic farming creates healthy soils that improve long-term agricultural productivity and contribute to a food-secure future.

Can organic help the nation’s water woes?

Farmland, natural ecosystems, and urban centers increasingly compete for scarce water resources due to chronic water shortages and water pollution.

While both conventional and organic fertilizers can leach into waterways and cause pollution, evidence shows that careful organic management reduces nitrogen leaching from farms, with several studies showing organic cropping systems losing 50 percent less nitrogen than conventional systems.92,93,94

Because the federal organic standards require farmers to maintain or improve natural resources, organic farmers implement a variety of practices that increase water quality.95 By building healthy soils with better soil structure,96 organic farmers increase the soil’s ability to absorb and store water.97 This increased storage capacity increases water use efficiency while reducing leaching and pollution.98 Effective use of organic practices results in food production that helps safeguard water quality and preserve this limited resource.

Does organic protect biodiversity?

Scientists around the world report alarming rates of species extinction.99 The rapid decrease in species that pollinate and control pests, among other critical functions, endangers the capacity of ecosystems and farms to support long-term food production.100,101

While modern agriculture is one of the biggest drivers of biodiversity loss,102 organic farmers aim to create farms with
Don’t settle when it comes to your organic nutrition program – choose AGRO-K and see the difference CLEAN delivers on your farm.

Focused efforts on combining the “5R’s” of crop nutrition – Right Nutrient, Right Time, Right Form, Right Mix, Right Place – in the plant will deliver the highest quality, highest marketable yield and highest return on investment.

Agro-K’s certified organic CLEAN™ line of foliar nutrients and soil biological products are manufactured to ensure maximum uptake and biological activity. We integrate our superior formulations with our deep knowledge of plant physiology and peak nutrient demand timing to build complete, high efficiency, cost effective nutrient programs that provide better value to organic crop production. The CLEAN line is specifically designed to address the nutritional needs of organically grown fruit crops. Our formulations are soft on plant tissue, rapidly taken up, highly bio-available and compatible with most organic crop protection products. CLEAN nutrition helps fruit growers meet peak nutrient demand timing and address nutrient deficiencies quickly while easily being integrated into crop protection programs.

Fruit quality has many different components: size, color, visual appeal, internal texture, storability, shelf-life, reduced shrinkage & bruising. All these factors, are directly affected by nutrition and influence ultimate crop quality and marketable packout. Agro-K has a 40 year track record of helping growers increase profitability.

CLEAN SEACAL – An organic calcium fertilizer designed for foliar application to correct calcium deficiencies combined with a seaweed fertilizer to help improve stress tolerance and plant health.

If you’re looking to increase marketable yield in your organic farm talk to Agro-K today about tailoring a nutrient management program to improve results and deliver higher economic returns.
California has the opportunity to utilize organic as a strategy for improving public health and prosperity while paving the way for other states to benefit from organic agriculture.

a healthy balance of plants, animals, and microbes to regulate pests without using synthetic pesticides, as in a natural ecosystem.\textsuperscript{103}

Comprehensive global meta-analyses show that organic farming increases biodiversity significantly compared to conventional farming,\textsuperscript{104, 105, 106} especially benefitting important pollinator species and natural pest enemies.\textsuperscript{107, 108, 109, 110} without an increase in pest populations.\textsuperscript{111}

Organic farms also provide toxin-free food and nesting sites for pollinators,\textsuperscript{112, 113, 114, 115, 116, 117} like honey and native bees, whose pollination services are valued at $15 billion per year in the United States\textsuperscript{118} and $190 billion worldwide\textsuperscript{119} because of their irreplaceable role in global food security.\textsuperscript{120}

Can organic feed a growing population?

Current evidence shows that organic fruit,\textsuperscript{121} vegetable,\textsuperscript{122} grain,\textsuperscript{123} and forage\textsuperscript{124, 125} yields are comparable to and often surpass conventional yields on research trials,\textsuperscript{126, 127, 128, 129, 130} even though not all working farms attain these yields.\textsuperscript{131, 132}

Researchers find that working farms increase yields when farmers refine their organic practices and soils adjust to non-chemical management, and conclude that with increased organic research and grower education, working organic farms can produce the highly competitive yields attained in research trials.\textsuperscript{130, 134, 135, 136, 137, 138}

Importantly, two extensive international studies conclude that current organic yields can feed a growing world population while also minimizing the environmental harms associated with other agricultural systems like loss of biodiversity, soil erosion, and water contamination.\textsuperscript{139, 140}

Moreover, scientists stress the importance of measuring farm performance under challenging environmental conditions because resource constraints and extreme weather are already negatively impacting farm productivity and endangering food security locally and globally.\textsuperscript{141}

Organic practices are shown to improve farm resiliency in the face of extreme weather conditions, such as droughts or hurricanes, by building healthy soils\textsuperscript{142, 143, 144, 145} and fostering robust levels of biodiversity.\textsuperscript{146, 147, 148} Worldwide studies show that farms using organic practices experience fewer crop, topsoil, and economic losses than their conventional counterparts in the aftermath of extreme weather events.\textsuperscript{149, 150, 151, 152}

By creating more resilient farms, organic agriculture helps ensure a secure food supply in the aftermath of extreme weather events and under increased resource constraints.

What can organic offer us?

The current evidence demonstrates that organic farming, with its multifaceted benefits, is a feasible, comprehensive approach to improving the lives, economies, and ecosystems of this nation.

By protecting and enhancing waterways, soils, air, and biodiversity, organic agriculture also protects and enhances the living and working conditions of urban and rural communities, especially for farmworkers and their children. Organic agriculture improves public health and security by producing highly nutritious crops that are resilient to a changing climate and that will ensure a secure food supply for future generations. Finally, the organic industry supports a new generation of farmers and consumers who are ushering in the next era of agricultural abundance.

Let’s continue the conversation!

Join CCOF and our members at Organic Generation – The Next Era, CCOF’s 2019 Annual Meeting and Conference in Fresno, California. On February 26 and 27, we will hear from innovative speakers and discuss the next era of organic. Who will be the producers and consumers of the future? What opportunities will arise from new technologies, skills, and markets? We hope you will join us in Fresno to add your unique perspective and voice to the discussion.

More to come: stay tuned!

The Roadmap to an Organic California: Benefits Report is the first of two reports by the CCOF Foundation. The second part of the project will convene diverse agricultural stakeholders to set forth a comprehensive menu of policies for expanding organic to at least 10 percent of California’s farmland by 2030. As the nation’s leader in organic, California has the opportunity to utilize organic as a strategy for improving public health and prosperity while paving the way for other states to benefit from organic agriculture. The Roadmap to an Organic California: Policy Report is forthcoming at the end of 2019.

Visit www.ccof.org/roadmap to learn more.
BIOSTIMULANT FERTILIZERS, PEST CONTROL & BIO FUNGICIDE

INCREASE FLOWERING & FRUIT PRODUCTION WHEN USING PURE PROTEIN DRY

99% OF NITROGEN DERIVED FROM FISH PROTEIN HYDROLYSATE, INCREASES WEIGHT OF FRUITS & VEGETABLES

PURE PROTEIN DRY

15-1-1

PRIMO AMINOS

18 TYPES OF AMINO ACIDS CONTAINS 80% + AMINO ACIDS

100% WATER SOLUBLE

7.5-1-25

5-7-14

11-8-8

ORGANIC CROP NUTRITION FOR ALL STAGES OF GROWTH

Weed-a-Way

CONTACT AND PRE EMERGENT HERBICIDE

EX-ICUTE™ & RID-BUGS

25(b) OILS MINIMUM RISK ORGANIC INSECTICIDES AND BIO-FUNGICIDE

NON-GMO

SALES CONTACT INFO:

JOE HASLETT
(805) 748-4033
joehaslett.oap@gmail.com

ED ZYBURA
(805) 550-7776
edzybura@charter.net

www.OrganicAGProducts.com

Guaranteed by AZ ENTERPRISES INC DBA ORGANIC AG PRODUCTS
2367 Brant Street • Arroyo Grande, CA 93420

Organic AG Products

OMRI LISTED

WSDA LISTED

Grants for Organic Use

Catalyst

CCOF Business Partner

Registered

Organic Input Matter
Resilience Through Chapters

It can take a challenging situation to strengthen a community and show the power of an organizational structure. CCOF’s chapter system provides a framework that helps bring local communities together.

The Pacific Southwest chapter recently came together to support Archi’s Acres, a local farm facing financial hardship. Mike Reeske, the chapter’s marketing officer, put together a GoFundMe campaign to raise funds that are already helping the Archipleys’ farm overcome their situation.

Drawing from the success of the campaign, chapter leaders Reeske and Linda Antonioli—along with their community—also put on a small festival to raise funds for Archi’s Acres. Farm Love, held on November 4 at CCOF-certified Coastal Roots Farm in Encinitas, was made possible by local vendors, producers, musicians, and fellow organic farmers who came together to enjoy a beautiful day filled with beer, wine, food, games, and music. All proceeds went to help Archi’s Acres. It was such a hit that the organizers have decided to run it every year and choose a local small farm in need of financial assistance as the recipient of the proceeds.

These stories encourage our work to cultivate community among CCOF members.

Fresno-Tulare Chapter

The Fresno-Tulare Chapter’s current leadership is Dwayne Cardoza, president; Vernon Peterson, board representative; and Eldon Thiesen, treasurer. The chapter encompasses Fresno, Kings, Madera, Mariposa, Mono, and Tulare counties.

On September 19 the chapter met at California State University, Fresno. Attendees discussed the recent tour CCOF organized connecting members of the California Organic Products Advisory Committee with local producers to help inform each other’s work. CCOF members also discussed potential regulatory exemptions for organic producers, as they already prove compliance through organic certification. Guest speakers from Portuguese agriculture technology company Luso Americana presented on their real data collection solutions for commodities, irrigation management, and beekeeping.

Mexico Chapter

The Mexico Chapter’s current leadership is Sergio Salgado Vidal, president; Paola A. Guerrero, vice president; Esteban Macias, board representative; Mariana Perez, treasurer; and Juan Escalante, secretary. The chapter encompasses all of Mexico.

On November 14 the CCOF Mexico Chapter held a meeting at the packing and processing plant for CCOF-certified Comercializadora GAB in Irapuato. Members in attendance were introduced to their new chapter leaders as well as CCOF staff who joined the meeting as part of a representation at the Agro Expoalimentaria in Guanajuato. The attendees were treated to a guided tour of the GAB facilities with Macias, GAB’s crop protection manager. Chapter leaders and CCOF staff led a discussion on CCOF’s current work in Mexico.

North Coast Chapter

The North Coast Chapter’s current leadership is Dawn Russel, president; Carrie Hendrickson, vice president; Genevieve Albers, board representative; and Ian Serrano, secretary. The chapter encompasses Marin, Napa, and Sonoma counties.

On September 27 the chapter held a meeting at Guayaki’s headquarters in Sebastopol, California. The chapter leadership conducted a survey of chapter members to decide meeting topics. Chapter members expressed interest in discussing cannabis regulations at the meeting, among other suggestions.

Tim Ricard of the Sonoma County Economic Development Board presented information on Sonoma County’s cannabis licensing, enforcement, and taxation. Sonoma County is currently issuing cannabis cultivation, dispensary, distribution and transportation, manufacturing, and testing lab permits. Peter Nell gave a broad overview of state cannabis law and CCOF’s positions on cannabis.

South Coast Chapter

The CCOF South Coast Chapter’s current leadership is Steve Zaritsky, president and board representative; Alisha Taff, vice president; and Maren Johnston, treasurer. The chapter encompasses Santa Barbara, Ventura, and North Los Angeles counties.

On November 3 the chapter held a meeting at Johnston’s home in Santa Barbara. A highlight of chapter meetings is always the opportunity for members to network in person. Guest speaker Dr. Surenda Dara, University of California Cooperative Extension advisor on entomology and biologicals, gave a thrilling solutions-oriented presentation on microbial control in organic integrated pest management.

We look forward to seeing you at one of the next CCOF chapter meetings!

Learn more about your CCOF chapter at www.ccof.org/chapters.
JOIN US in our efforts to promote and protect organic food and agriculture. You can have direct access to Organic Trade Association resources, including full voting rights, with a $50 Farmstead Membership*.

We are working together to advance critical policy priorities that impact organic farmers, growers, and ranchers.

- Protect organic standards
- Expand domestic acreage
- Increase organic research
- Improve oversight of organic imports

JOIN US to amplify the voice of organic farmers in national policy advocacy and stay current on changing regulations that affect your business.

*Reserved for farmers with annual organic sales less than $250,000 who are also current members of one of the participating organizations in the Organic Trade Association’s Farmers Advisory Council. All others refer to the OTA membership dues scale.

Organic Trade Association
FARMERS ADVISORY COUNCIL (FAC)

We are the largest coalition in the United States of organic farmers and organic farming organizations. Together we represent nearly 8,000 livestock, poultry, grain, and specialty crop producers.

FAC gives organic farmers a voice to directly influence the Organic Trade Association’s national policy and advocacy work. Take your seat at the table.

LEARN MORE at OTA.com/FAC or contact Farm Policy Director Jo Mirenda: (202) 812-7704 • jmirenda@ota.com

The Organic Trade Association is proud to partner with CCOF to strengthen the organic sector’s national public policy impact.
OTA UPDATE

Organic Trade Association Seeks “Big Ideas” on Voluntary Program

The Organic Trade Association is inviting organic stakeholders to send in their biggest and brightest ideas on how best to collaboratively design and implement a voluntary industry-invested “check-off-style” program for the organic sector.

The vision for “GRO Organic” (shorthand for Generate Results and Opportunity for Organic) as a voluntary research, promotion, and education program is to create innovative solutions and meaningful funding to address the organic sector’s most pressing needs. These include bringing new farmers into organic production, making sure existing farmers can stay in organic, increasing organic research, and educating the public about the benefits of organic.

The goal is to build a collaborative framework engaging stakeholders throughout the organic supply chain in promoting the organic brand and organic production practices, and advancing essential research to solve problems facing organic farmers, processors, handlers, and businesses.

We want GRO Organic to be a bold and engaged opt-in program that pools resources from everyone who can contribute so that we can collectively address critical needs across the organic sector. The need for more investment in organic is widely agreed upon—how we solve for it is what we must now work together to determine.

We are asking you to weigh in and help shape the voluntary program at the start of the process.

Seeking Your Ideas

In November, we announced a six-month period for stakeholders to submit their big ideas for making this happen. This period will end on April 30. During this time, we encourage you to share your thoughts on how to develop and shape this voluntary program. We have provided a set of strategic questions on the GRO Organic section of www.ota.com to focus on five specific concerns of a voluntary program. These center on participation, funding, decision-making, programming, and general issues.

For instance, who are the stakeholders who could or should opt in to participate? How can we maximize participation (since it would be voluntary)? How do we encourage participation from farmers to retailers of all types and sizes? Should the cost to participate be based on organic sales? Should it be standardized or discretionary? What are your thoughts on how to best approach promoting organic? What strategies do you think resonate with consumers and other end users of organic products? Do you know of other industry-invested research or consumer education programs that you suggest we look at?

Tell us your vision for GRO Organic. Do you have a good idea? Something that could have important and long-lasting benefits for organic farmers, companies, or consumers?

Maybe you already have a specific plan for how the organic industry could break through to consumers about the benefits of organic, or boost support systems transition more U.S. farmers and acres to organic. If you do, don’t be shy! Please tell us what it is! Then, challenge yourself to consider this big idea—or the general GRO concept for voluntary coordinated research, promotion, and education—against the strategic questions we have on our website. Put pen to paper, and really walk us through how your ideas could work.

We look forward to your thoughts. This is an important time for organic. Together we can shape a visionary plan for organic going forward.

Please file your submissions electronically and send them to GROideas@ota.com with the submission embedded or attached. Name, location, and business affiliation should be included. After the period to weigh in closes on April 30, all responses shared with GROideas@ota.com will be organized and summarized for further conversation.

We want GRO Organic to pool resources so that we can collectively address critical news across the organic sector. In order for it to be effective, we need to determine the best way to encourage broad participation and set up a fair governance structure. In that way, we can tackle key research questions that are vital to organic producers, conduct engaging promotions, and provide meaningful education on organic. This is no small task, and we need all stakeholders to join in being part of the solution.

WRITTEN BY Laura Batcha, Executive Director and CEO of the Organic Trade Association
I found my spark...

“Expo West is the best way to deepen your understanding of the industry. For industry veterans it’s the best networking event of the year. And for new brands, it can mean the difference between being a small regional brand and a national powerhouse. Simply put, Expo West is a must for anyone involved with natural products.”

Matt LaCasse
Birch Benders
Micro-Pancakery

Natural Products
EXPO WEST®

Education & Events
March 5–9, 2019

Trade Show
March 6–8, 2019 | Anaheim Convention Center North Halls, Anaheim Hilton
March 7–9, 2019 | Anaheim Convention Center Main Halls
Anaheim, CA USA

Register online at expowest.com
Questions? Contact us at
1.866.458.4935 or 1.303.390.1776 | expowest@newhope.com

Produced by:

Co-located with:
Certification and Natural (or Other) Disasters

We have taken the opportunity to reflect on our role and relationship with our certified members as major fires appear to occur more frequently and after learning of other tragic events affecting CCOF-certified operations.

Organic certification is a process that depends on annual inspections, replies to communication, and ongoing updates when changes occur that may affect compliance. However, we understand that you may at times be impacted by natural disasters, personal tragedies, or even accidents or injuries at the certified operation.

When an operation is affected by a natural disaster, we strive to be as helpful and flexible as possible. When we can, we try to map and identify affected and potentially affected operations. When you’re impacted, our goal is to help you remain certified and to take additional stress out of the process.

We can extend deadlines, reschedule inspections, consider emergency temporary locations, and postpone escalation of issues to noncompliance or Proposed Adverse Action when we have a reason or knowledge that you’re unable to respond. When possible and appropriate, we also perform abbreviated or low-impact inspections to operations that are out of production for some period but do not wish to leave organic certification.

We also encourage you to take advantage of the CCOF Foundation’s Bricmont Hardship Assistance Fund that provides financial assistance to organic operations experiencing hardship. Learn more about how to apply for assistance or share with an affected operation at www.ccof.org/hardship.

Please contact us if you are affected by a natural disaster so we can do our best to support you during a challenging time. We know that without you, organic food and farming are not possible, so we are committed to doing what we can to help you during trying times.

Commercial Availability of Organic Strawberry Starts

The National Organic Program requires that producers search for organic strawberry starts prior to using non-organic starts. CCOF is aware that organic strawberry starts are commercially available from Innovative Organic Nursery at www.innovativeorganicculture.com.

As a process-based standard, we are committed to continual improvement and the use of commercially available seed, starts, and ingredients as intended in the letter and spirit of organic. This helps ensure a robust organic ecosystem and supports our shared efforts to meet consumer expectations. When a single viable source exists for a given product or ingredient, it is inappropriate for searches to not include that source prior to the selection and purchase of a non-organic alternative.
SoilBiotics products are formulated to provide a continuous and highly beneficial program that will enhance plant performance.

**PRODUCTS**
- Humic and Fulvic Acid products
- Micronutrient products
- Natural microbial products

**BENEFITS**
- Conservation of applied fertilizers
- Decreased environmental contamination
- Increased soil microbial activity
- Increased availability of other soil bound nutrients
- Increased crop yields due to greater fertilizer efficiency

Providing Full Circle Improvement for Soil Health and Plant Growth... Naturally
In order to ensure appropriate compliance, operations must include this known source of organic starts in their commercial availability search for 2019 production. During inspections, we will be verifying that strawberry producers are contacting providers of organic strawberry starts, including Innovative Organic Nursery, to source organic versions in the appropriate form, quality, and quantity. Please retain documentation of your search in the form of notes or records provided by the nursery itself.

**CCOF Fee Changes for 2019**

**Annual Certification Fees**

To meet service needs and keep up with rising costs, we are making minor adjustments to the annual certification fees. Annual certification fees are increasing approximately 2 percent in each fee category, effective November 1, 2018 for new operations, and January 1, 2019 for existing clients. A full fee schedule can be found in the CCOF Certification Services Program Manual, on the back of annual invoices, and online at www.ccof.org/fees. You can expect small increases each year to keep up with the cost of doing business. These increases are intended to be modest, but also support the staffing necessary to meet service expectations and organizational goals.

**Rush Review Request Fees**

Effective November 1, 2018, Rush Review Request fees for faster review of Organic System Plan (OSP) updates are increasing. The fee for a two-day Rush Review will be $375, and the fee for a five-day Rush Review will be $175. These increases ensure that CCOF can continue to provide excellent service for those who need a quick turnaround.

**Fees for Adding Products Clarified**

Effective November 1, 2018, fees for adding products have been clarified in the CCOF Certification Services Program Manual. CCOF charges a one-time $75 administrative fee for each new product or service you add to your OSP. Each individual product formula and brand is considered one product. Label or formula changes for existing products are reviewed for no additional fee. CCOF may charge a reduced rate of $75 for up to three single-ingredient products with the same brand or three brands for the same single-ingredient product. Fee reduction is at the sole discretion of CCOF and only applies to products received simultaneously. For addition of more than 50 new products at one time, CCOF may charge fees per the “Reproduction and Information Rates” section of the CCOF Certification Services Program Manual. Private Label Name and Seal Use fees also apply to products produced for private label owners who are not certified by CCOF Certification Services. This fee clarification reflects the necessary staffing that these additions require, and will ensure CCOF is able to meet the service expectations for clients and their private label owners/marketers.

---

**Breeding and Producing Organic Seeds**

At Vitalis, green is a key part of what we do – providing growers with high quality, certified organic seeds of arugula, lettuce and spinach.

We offer a broad assortment of leafy greens in diverse types and colors with the strongest levels of resistance for the professional organic grower of high density crops.

For more information about the availability of our downy mildew and aphid resistant leafy varieties, please call 831-757-2300 or visit our website: vitalisorganic.com

---

VITALIS HAS THE GREENS

For more information about the availability of our downy mildew and aphid resistant leafy varieties, please call 831-757-2300 or visit our website: vitalisorganic.com

---

Introducing the First Organic & Gluten Free Dedicated Kitchens in the Bay Area.

Call us at 925.212.5582

2428 Shattuck Ave. Berkeley • www.visitcertifiedkitchens.com
The Benefits of an Organic California: Endnotes


33.合成食品と難消化性アミノ酸の関係についての研究のレビュー。京都大学, 6A-0912–1184.
Are you using organic seed treatments?

Check out our organic and conventional seed treatments at germains.com or ask your preferred seed distributor about our ProBio® certified organic seed technologies.
FOOD SAFETY IS AS IMPORTANT TO US AS IT IS TO YOU

Clark Pest Management is a leading-edge company that is fully engaged in supporting your commitment to produce safe, compliant, quality foods for your customers.

Clark professionals provide science-based approaches to pest management, resources for food safety education and facility assessments to help you meet the challenges of today and the future.

clarkpest.com/commercial-services
(877) 213-9903
foodsafety@clarkpest.com

From the makers of
THE ORIGINAL GREEN MILK PAINT®

Our new Eco-Orchard Paint, natural sun block for tree trunks, is all natural, biodegradable, durable, nonpolluting and ships in a powder form to reduce costs and carbon impact. Just add water and start painting.

Ask us for a free sample today!

www.milkpaint.com
Toll free at (866) 350-6455
anne@milkpaint.com
THE OLD FASHIONED MILK PAINT COMPANY, 436 MAIN ST., P.O. BOX 222, GROTON, MA 01450

The trusted name in buying & selling ORGANIC GRAINS

F.W. COBS COMPANY

Growing Together

888.531.4888
www.fwcobs.com

Biodegradeable Organic Paper Mulch

ROLLS & SHEETS FOR:
Conventional growers • Organic growers • Landscapers
Small Gardens • Large Gardens

INCREASES YIELDS
In a recent study, cantaloupes grown with fertilizer-enriched WeedGuardPlus yielded 54% more fruit than the control soil.

FEEDS YOUR PLANTS
Options include WeedGuardPlus enriched with fertilizer, humic acid to condition soil, or calcium to prevent blossom end rot.

MAKES WATERING EASY
Unlike plastic, WeedGuardPlus is porous, so rainwater or overhead irrigation can be used for watering.

<table>
<thead>
<tr>
<th>Item</th>
<th>Plastic</th>
<th>WeedGuardPlus</th>
<th>WeedGuardPlus w/Fertilizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminates weeding</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Increases yield</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Drip tape under weed block</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Drip tape over weed block</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead irrigation</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Porous — plants breathe</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>100% biodegradable</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Requires pick up and disposal</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Funs under to enrich soil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-fertilizing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For more information or to order:
800-654-5432
www.WeedGuardPlus.com

Please visit our website for special offers
www.WeedGuardPlus.com
Organic Solutions
that work as smart as you do.

Valent U.S.A. LLC, the leader in solutions for organic production, offers a wide range of products to improve and protect crops—insecticides, fungicides, PGRs and soil and seed applied solutions. Our products can be used in conventional farming as part of a rotational program for integrated pest management. From root tip to leaf tip, we help you maximize your crop. Visit valent.com/organics to learn more.