

# The New Face of Green

Dairy farmer John Fiscalini poses in front of his state-of-the-art methane digester that converts cow manure into electricity.

Sustainable Conservation partnered with hundreds of committed California farmers in 2008 to protect the planet while enhancing the state's agricultural economy.

# DEAR FRIENDS,

For more than 15 years, Sustainable Conservation has advanced a model of environmental sustainability that builds uncommon partnerships with business, agriculture and government. It's one of the things that makes us so unique. And, it's what made 2008 so momentous.

Across California, an unlikely group of environmental heroes joined Sustainable Conservation to tackle tough issues, like climate change, facing the state. For decades they've been labeled by many as part of the problem, but thanks to Sustainable Conservation's years of support, they've become a major player in the solution. This surprising group? Farmers.

Leading the charge in 2008 was Modesto dairy farmer John Fiscalini.

As you'll read inside, with Sustainable Conservation's help, John built one of the world's most advanced methane digesters to convert tons of cow manure into an abundance of clean, renewable energy to power his farm – plus 200 of his neighbors' homes. Statewide, the technology has the potential to cut methane, a potent greenhouse gas, by 450,000 tons a year and power roughly 120,000 homes. That's one-third of all homes in San Francisco.

But John wasn't alone. We worked with hundreds of farmers up and down California to protect the planet while enhancing the state's agricultural economy.

We helped develop the nation's first "cow powered" truck. The vehicle, which normally runs on diesel, was converted to run on biogas produced from manure. Biogas is the world's only carbon negative vehicle fuel, cutting global warming emissions, air pollution and dependence on fossil fuels. Using it nationally would be like taking 16 million cars off the road.

To protect clean water for people and wildlife, Sustainable Conservation encouraged farmers to slash their use of chemical fertilizers, which can spoil waterways and the life they support, by tens of thousands of pounds. Farmers in regions of the Central Valley plagued by some of the nation's dirtiest air learned how to cut their dust and diesel emissions by more than 50%. Protecting water and air kept crop yields strong, saved thousands of dollars in fertilizer and fuel costs, and promoted healthy communities.

We can't thank John and other committed farmers enough for making sound environmental stewardship "business as usual" – and loyal supporters like you for making our work with agriculture possible. We hope to make farming in California an even bigger part of the solution in the years ahead.

Once labeled by many as adding to California's environmental problems, farmers are emerging as part of the solution thanks to Sustainable Conservation's efforts.

Thank you,



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Russell Siegelman Board Chairman



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Ashley Boren Executive Director



"Now more than ever, farmers have an opportunity to showcase how good we can be at protecting the environment."

John Fiscalini Owner Fiscalini Farms

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# GREEN GETS A MAKEOVER

"We've always touted ourselves as the original environmentalists," said John Fiscalini during a recent visit to his 530-acre dairy in Modesto. "We hope the rest of the world starts seeing us that way, too."

The quiet 59-year-old is leading a surprising movement in California that has farmers partnering with long-time environmental proponents like Sustainable Conservation to clean up the state. Tired of being portrayed as part of the problem, John is proving that farmers can be a big part of the solution.

"Now more than ever, farmers have an opportunity to showcase how good we can be at protecting the environment," John said.

## SLOWING A CHANGING CLIMATE

At the top of John's growing list of environmental achievements is his fight against climate change. John's biggest asset is one of the world's most advanced methane digesters (facing page), which he built in 2008 with Sustainable Conservation's help. The digester captures harmful methane gas from the manure his 1,500 cows leave behind and converts it into clean, renewable energy.

While not the worst among greenhouse gases, a title that goes to carbon dioxide due to its prevalence, methane is 21 times more potent. And, manure from livestock – especially cows – is a major source. By some accounts, methane from livestock constitutes nearly 5% of all greenhouse gas emissions in California. Manure also speeds the formation of smog, affecting tens of thousands of Central Valley residents – especially children and the elderly – suffering from respiratory illnesses.

Once fully operational this summer, the system's two 860,000-gallon tanks will trap 5,400 cubic feet of methane and produce more than 700 kilowatts of electricity each hour. That's so much juice that only half of it will be needed to power the 88,000-square-foot cheese factory John plans to build in the coming year. He'll feed the other half into the electrical grid to power 200 nearby homes.

"It's a pretty cool thing ... to not only help with global warming, but at the same time produce clean energy that can power my operation and neighbors' homes," John said. "It will also save me thousands of dollars a month in utility costs."

Sustainable Conservation is proud of its role in making the digester a reality. Over the last two years, we helped John secure government funding to build the system and provided technical expertise to make it more efficient and burn methane more cleanly. Building on more than five years of groundwork, Sustainable Conservation also influenced the California Public Utilities Commission's 2008 decision to require large utilities such as Pacific Gas & Electric to purchase power from renewable energy producers like John at fair prices. This means John and other dairy farmers have more incentive to make digesters a permanent part of the state's effort to curb climate change.

"We couldn't be more thrilled with John's achievement," said Sustainable Conservation Program Director Allen Dusault, who oversaw the project. "He's helping advance a new model of sustainability for the state and country, and demonstrating that agriculture is vital in fixing the planet. We hope other farmers follow his lead."

If others do follow and digesters are installed on all California dairies, they would capture as much greenhouse gas as 2 million cars emit annually. They would also save farmers \$2 million in energy costs each year.

Methane, though, is only one drawback of manure.

Fiscalini Farms' two 860,000-gallon methane digesters (below) turn cow manure into electricity, and will soon power an 88,000-square-foot cheese plant and 200 nearby homes. The digesters also dramatically cut greenhouse gases that fuel climate change.

California's nearly 2 million dairy cows produce 65 billion pounds of waste each year – as much as the state's entire human population. Manure can pollute waterways and drinking water for millions.

## CULTIVATING CLEAN WATER

Dairy cows in California generate more than 65 billion pounds of waste each year – as much as the state's nearly 37 million human population. If not managed right, manure can pollute rivers, lakes and drinking water that millions of Californians depend on.

John keeps water on and off his farm healthy in a number of ways. First, wastewater used to wash his milking facility and cows' stalls is run through his new digester to kill harmful pathogens that could make his family and cows sick. The "digested" water is then applied to his fields to grow the crops that feed his cows. According to John, the treated water is actually better than other organic fertilizers because the processed nutrients in it are more easily absorbed by his crops. That means fewer nutrients can escape into the environment.

"We don't use commercial fertilizer because we've found how to be more efficient by using only manure," John said. "And, we produce enough to take expensive commercial fertilizer out of the equation for our farm."

Applying manure water instead of commercial fertilizers also helps avoid polluted runoff that's common with synthetic varieties. And, because the manure is free, John saves up to \$50,000 a year in fertilizer costs.

There's more to John's story.

## CLEARING THE AIR

In 2008, Sustainable Conservation showed John an innovative cultivation technique called conservation tillage that reduces air pollution. Much of the pollution in the Central Valley, including places like Modesto, comes from farming. Standard cultivation techniques, practiced on millions of acres, kick up clouds of dust and involve diesel-burning machinery. This, combined with emissions from automobiles and other industries, makes the Valley home to some of the dirtiest air in the nation.

Conservation tillage involves leaving crop stubble (such as corn stalks) on the surface of the soil and planting a new crop right on top. Doing so reduced the number of tractor passes required to prepare John's fields for planting. It also kept large volumes of dust and diesel fumes from darkening the sky – and helped John's neighbors breathe easier. Statewide, conservation tillage could cut dust pollution alone by up to 80% compared to standard cultivation practices.

"When I look across the Valley and see all that haze, it's good knowing that's not from me," John said. "Or, at least it's less me than other folks."

Less time on his tractor meant John pocketed more than \$25,000 that he would have otherwise spent on fuel, maintenance and labor. He was also able to focus on more important things – like his family.

From renewable energy to clean water and air, John Fiscalini is putting California farmers in a whole new light. With support from Sustainable Conservation, he's proving that they are a big part of the solution to pressing environmental problems facing California. And, they're happy to do their part because, as John likes to say, "We're all in this together."



## SAY CHEESE

Want a tasty way to help John fight climate change, and protect clean air and water? Fiscalini Farms' awardwinning cheeses are available throughout the Bay Area, including at Whole Foods Market, Mollie Stone's, BevMo and Costco. Visit www.fiscalinicheese.com for more locations.

Protecting the environment never tasted so good.





"Sustainable Conservation's hallmark of working across sectors to develop solutions that benefit the environment and the economy exemplifies the kind of innovative. effective models we aim to highlight through the James **Irvine Foundation** Leadership Awards." (Executive Director Ashley Boren received this prestigious award in 2007.)

Jim Canales President and CEO The James Irvine Foundation

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## PARTNERS

Sustainable Conservation extends our sincere gratitude to our dedicated partners. Advanced Drainage Systems Affinia Ag Innovations Network Agricultural Leadership Foundation Akebono Brake Corporation Alameda County Resource Conservation District Alameda Countywide Clean Water Program American Farmland Trust American Nursery and Landscape Association American Society of Landscape Architects, Northern California Chapter Amyris Biotechnology AQÚA TERRA Consultants Aquarium of the Pacific Association of Bay Area Governments Association of Landscape Design Professionals Atmospheric and Environmental Research, Inc. Audubon California Automotive Aftermarket Industry Association Bank of America Bay Area Open Space Council Bay Area Stormwater Management Agencies Ássociation **Biodiesel Industries BiRite Food Service** Bosch Brake Components LLC Brake Manufacturers Council - Product Environmental Committee Brake Parts, Inc. Cachuma Resource Conservation District CALFED Bay-Delta Program California Agricultural Commissioners and Sealers Association California Agricultural Leadership Foundation California Air Resources Board California Association of Nurseries and Garden Centers California Association of Resource **Conservation Districts** California Biodiversity Council California Cattlemen's Association California Climate Action Registry California Coastal Commission California State Coastal Conservancy California Cotton Growers and Ginners Association California Dairy Campaign California Dairy Quality Assurance Program California Department of Conservation California Department of Fish and Game California Department of Fish and Game -Wildlife Conservation Board California Department of Food and Agriculture California Department of Transportation California Department of Water Resources California Energy Commission California Environmental Dialogue California Environmental Protection Agency California Farm Bureau Federation California Invasive Plant Council California Landscape Contractors Association California Native Plant Society, Santa Cruz County Chapter California/Nevada/Arizona Automotive Wholesalers' Association California Polytechnic State University, San Luis Obispo California Rangeland Conservation Coalition California Rangeland Trust California Resources Agency California Rice Commission California Roundtable on Agriculture and the Environment

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PRBO Conservation Science Quikrete **RCM** Digesters Redwood Community Action Agency Resource Conservation District of Monterey County Resource Conservation District of Santa Cruz County Resource Landowners Coalition **Riparian Habitat Joint Venture River Partners** Sacramento Municipal Utilities District San Benito Resource Conservation District San Diego County San Diego Regional Water Quality Control Board San Francisco Bay Regional Water Quality Control Board San Francisco Estuary Institute San Francisco Estuary Project San Joaquin Valley Air Pollution Control District San Joaquin Valley Clean Energy Organization San Luis Obispo County San Mateo County Farm Bureau San Mateo County Resource Conservation District Sand County Foundation Santa Cruz County Sierra Club Soil and Water Conservation Society Sonoran Joint Venture State of California Auto Dismantlers Association SureHarvest TDC Environmental Tennessee Valley Authority The Nature Conservancy Tollenaar Dairy Trout Unlimited Tulare Basin Wildlife Partners Tulare Lake Basin Working Group UC Cooperative Extension UC Cooperative Extension, Contra Costa Master Gardeners Program UC Cooperative Extension, Davis UC Cooperative Extension, Kearney Agricultural Center UC Cooperative Extension, Kings UC Cooperative Extension, Riverside UC Cooperative Extension, Stanislaus UC Cooperative Extension, Tulare UC Davis UC Davis Arboretum UC Davis – RIDNIS Project UC Division of Agriculture and Natural Resources Conservation Tillage Workgroup UC Santa Cruz Arboretum UC Sustainable Agriculture Research and Education Program University of Washington Upper Salinas-Las Tablas Resource Conservation District **URS** Corporation US Army Corps of Engineers US Department of Agriculture, Natural Resources Conservation Service US Department of Interior US Environmental Protection Agency US Environmental Protection Agency, Region 9 US Fish and Wildlife Service US Geological Survey Ventura County Resource Conservation District West Lake County Resource Conservation District Western United Dairymen Westside Resource Conservation District Yamagami's Nursery Yolo County Resource Conservation District

Process Profiles

# 2008 FINANCIAL HIGHLIGHTS

SUPPORT AND REVENUE		
Foundation Grants	48%	
Government Grants	33%	
Individual Contributions	16%	
Other	3%	

EXPENSES		
Program	82%	
General & Administrative	9.5%	
Fundraising	8.5%	
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## STATEMENT OF ACTIVITIES

Foundation Grants Government Grants Individual Contributions Other <b>Total Support and Revenue</b>	\$ \$	2,112,317 1,442,751 715,395 113,736 <b>4,384,199</b>
	¥	4,004,177
Program	\$	2,732,852
General & Administrative		316,381
Fundraising		291,085
Total Expenses	\$	3,340,318
Net Assets Beginning of Year	\$	1,928,682
Net Assets End of Year		2,848,62
Increase in Net Assets	\$	919,941

For a complete financial report audited by Ghaffari Zaragoza LLP, Certified Public Accountants, please contact Sustainable Conservation.

## FRIENDS,

Sustainable Conservation had another remarkable year partnering with the private sector to find environmental solutions that make real economic sense.

Because of sound oversight on the part of its staff and board of directors, Sustainable Conservation's finances remain solid.

Augmenting our financial position are several sizable, multi-year grants that will continue to strengthen and buffer our core programs until the economy regains its health. We've also put into motion organization-wide initiatives that will maximize our impact while minimizing our expenses.

Since 2003, Sustainable Conservation has received top honors from the nation's premier independent non-profit evaluator, Charity Navigator, because of our sound financial management and wise use of our donors' generous gifts. Only 4% of all U.S. non-profits have received this distinction.

l encourage you to visit our website (www.suscon.org) to check out our strong financial standing for yourself. For your convenience, we've posted our 2008 financial highlights and audited statements. As always, we'd enjoy hearing from you, so don't hesitate to contact us at suscon@suscon.org or [415] 977-0380.

Warm regards, hul L Russell Siegelman

Russell Siegelmar Board Chairman



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DESIGNED BY: SAN FRANCISCO ART DEPARTMENT PHOTOS BY: ROBYN CARLISS AND PAOLO VESCIA PRINTED ON 100% POST-CONSUMER, CHLORINE-FREE PAPER WITH SOY-BASED INK For more than 15 years,

Sustainable Conservation has

partnered with the private sector to

find environmental solutions that

make economic sense. Our climate,

clean air and water, and biodiversity

initiatives promote practical solutions

that result in tangible, lasting

benefits for California.



## **TOP HONORS 5 YEARS RUNNING**

In 2008, Sustainable Conservation received top honors from the country's premier independent non-profit evaluator, Charity Navigator, for our financial strength and ability to maximize donations. That makes five years in a row – a ranking only 4% of all non-profits nationwide have achieved.