



The Quivira Coalition

Working to Achieve Harmony Between Humans and Nature

Why Grassfed is Best

by Jo Robinson, author and researcher

In my Grandma's day, there was no such thing as a bad fat. All fat was "good" simply because it tasted good. My Grandma fried her eggs in bacon grease, added bacon grease to her cakes and pancakes, made her pie crusts from lard, and served butter with her homemade bread. My grandmother was able to thrive on all that saturated fat—but not my grandfather. He suffered from angina and died from heart failure at a relatively young age.

My grandfather wasn't alone. Population studies from the first half of the 20th century showed that Americans in general had a much higher risk of cardiovascular disease than people from other countries, especially Japan, Italy, and Greece. Was all that saturated fat to blame? The Japanese were eating very little fat of any kind, while the Mediterraneans were swimming in olive oil, an oil that is very low in saturated fat but high in monounsaturated fats.

So, in the 1960s, word came



Editor's Note

Our next four newsletters will explore different aspects of "Nature's Model." This issue is about food and how our choices about what we eat affect not only our health but also the health of our lands.

Many of us are probably unaware of how far we have come from Nature in the production of our food in this country and how that has contributed not only to deterioration of our health but to the deterioration of our land. We hope this issue will be an eye opener!

from on high that we should cut back on the butter, cream, eggs, and red meat. But, interestingly, the experts did not advise us to switch to an ultra-low fat diet like the Japanese, nor to use monounsaturated oils like the Greeks or Italians. Instead, we were advised to replace saturated fat with polyunsaturated oils—primarily corn oil and safflower. Never mind the fact that no people in the history of this planet had ever eaten large amounts of this type of oil. It was deemed "the right thing to do." Why? First of all, the United States had far more corn fields than olive groves, so it seemed reasonable to use the type of oil that we had in abundance. But just as important, according to the best medical data at the time, corn oil and safflower oil seemed to lower cholesterol levels *better* than monounsaturated oils.

Wrong Oil

Today, we know that's not true. In the 1960s, researchers did not

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Announcing the formation of the Southwest Grass-Fed Livestock Alliance

On April 15, a group met in Santa Fe to explore the possibility of establishing a regional network of producers, consumers, educators, and others focused on grass-fed food. The meeting was organized by Marcia Diane, of Partners Land Trust, with a small grant from the McCune Foundation and ENMR, a rural telephone cooperative.

Participants included: Courtney White, Felix and George Vigil, Julia Davis-Stafford, Mark Cortner, Sid & Cheryl Goodloe, Alex Perea, Walt & Ruth Marshall, Jim Weaver, Willard Heck, and Sam Montoya.

The goal of the meeting was a simple one: should there be a second meeting? Is the Southwest ready for grass-fed beef? Are producers ready to produce? Should we even try?

Issues discussed included:

- Producing good cows is not the problem, marketing is.
- Other problems include:
 - getting enough cows produced to keep a processor going;
 - FDA inspection;
 - consistent meat quality;
 - too much juniper on the land.
- But, a grass-fed business

could keep the family ranch alive.

- There is a big opportunity here to “strengthen the bond between healthy food and good stewardship.”

- But is there enough irrigated pasturage in New Mexico? What about tribal lands along the Rio?

- We should look at multi-species grazing with goats, etc.

- Argentine beef will be tough competition at 39 ¢/lb.

- There is the ongoing campaign to end public lands ranching.

- It’s all about education—the public needs to **demand** grass-fed food.

- Locally raised food is the best marketing angle.

- There is a huge need for a portable slaughtering facility.

- We need to reduce the seasonality of the meat and get people to buy freezers.

- Uniform labeling is a good idea, like the New Mexico Organic Livestock Cooperative.

In the end, the group voted unanimously to meet again and push forward, with the caveat that we don’t reinvent the wheel. We need to remain sober too about our prospects.

After an energetic discussion, we settled on the name “Southwest Grass-Fed Livestock Alliance (SWGLA)” in hopes that it can be a regional organization for marketing and education (while producers provide food locally) as well as an alliance of ranchers, environmentalists, consumers, farmers, scientists and others. In diversity lies strength.

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June 2003

The old saying “the only constant in life is change” has caught up with The Quivira Coalition.

Over the past few years, The Quivira Coalition has been evolving from an organization focused on the promise of progressive ranch management and the debate over the proper role of livestock in the Southwest, to a group focused on the broader questions of land health, sustainability, and ecological and economic restoration, of which good grazing is just one element.

At the same time, we remain an organization devoted to ideas and the practice of good stewardship on public and private rangelands, and will continue to move in this direction, principally through our work with ranchers and their supporters, even though our work now encompasses broader stewardship goals.

An example of this transition has been our involvement with the restoration concepts of Bill Zeedyk. We decided to work with Bill for two reasons: first, his innovative ideas for restoring riparian function through low-cost, low-tech techniques that “let nature do the work” fit nicely with our philosophy on progressive ranch management: how critical it is to work **with** nature’s principles, not **against** them. Second, without good grazing management, Bill’s work is a waste of time, i.e., why restore a riparian area to health if the cows are just going to trash it? Vice versa too—if a rancher is willing to change his management, why not help him or her “speed up” the riparian recovery process at the same time?

It is also for these reasons that Bill has become an enthusiastic supporter of The Quivira Coalition.

Working with Bill, and others, proved to be a natural progression for The Quivira Coalition. In fact, some of us have argued for years that this organization needed to get

away from a “fixation” on ranchers and cows, focusing instead on a “holistic” portrait of the region and all of its resources—people, water, grass, animals, livestock, etc. It was time, in other words, to concentrate our efforts on the Big Picture, of which cattle were just one part of the puzzle.

This mirrors developments in the larger world, where questions of limits, adaptation, and sustainability are growing more prominent in the public discourse. Besides, it’s not 1997 anymore—the idea that ranching can be done in an ecologically sensitive manner is no longer news; nor is the knowledge that environmentalists and ranchers can get along.

As a result of all this, The Quivira Coalition’s Board of Directors voted unanimously in November to adopt a new mission statement for the organization. It reads:

“The mission of The Quivira Coalition is to foster ecological, economic, and social health on Western landscapes through education, innovation, collaboration, and progressive public and private land stewardship.”

Our new tag line reads:

“Working to achieve a harmony between humans and nature.”

This does not mean, however, that we are abandoning our previous efforts to promote progressive ranch management, encourage collaboration, or bring good science to bear on thorny questions about livestock use on public and private rangelands. Far from it. What we intend to do from here on out is integrate the “New Ranch,” as we have called it, with efforts at broader-scale restoration and land health projects.

We look forward to more growing and transitioning as we try to keep up with rapidly changing times. With luck, there will not be a need to adjust our mission statement again for a few years yet!

From the Founders

Jim Winder
Courtney White
Barbara Johnson

“The mission of The Quivira Coalition is to foster ecological, economic, and social health on Western landscapes through education, innovation, collaboration, and progressive public and private land stewardship.”

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*Tofu-Producers are
Subsidized More than
Beef- and Lamb-
Producers!*

Welfare Soybean Farming vs. Welfare Ranching

*by Gary Nabhan, Ph.D.,
Center for Sustainable
Environments*

*Gary Nabhan, Director of
Northern Arizona University's
Center for Sustainable
Environments, is author of
Coming Home to Eat. He
raises (and eats) Navajo-Churro
sheep.*

What should the socially conscious environmentalist pick for dinner tonight: soyburgers or burgers from range-fed beef and lamb? The answer may be different than you think.

When choosing which foods to have as the main course on your dinner plate, have you tried to decide which are the least of evils, economically and ecologically speaking? Which foods do you consider to be unfairly subsidized in ways that have led to environmental degradation? New research shows that grass-finished beef and lamb from livestock grazed on federal lands may be preferable to genetically modified, Roundup Ready soy, processed into texturized vegetable protein or tofu.

While exposés like *Fast Food Nation* can clearly make consumers leery of feedlot-finished, mass-slaughtered beef, what about grass-finished beef and lamb? When the subsidies that ranchers receive are stacked up against those underlying soybean production in the United States, the stack is not all that high.

For some three decades, vegetarian proponents of a “diet for a small planet” have argued that you should eat more tofu and less beef, because it allows you to eat lower on the food chain, thereby reducing the size of your ecological footprint. But that is not the only ethical and environmental concern about beef production in the U.S.; in recent years, a number of organizations have attacked what they call “welfare ranching,” that is, the federal subsidies that supposedly prop up the cattle and

sheep industries. Some 30,000 stockmen have permits to graze their cattle and sheep on public lands: BLM, Forest Service, state and county allotments in the West. Because grazing access to most of these lands is gained through lease fees set at far below the market prices on private lands, critics claim that livestock raising in the West is highly subsidized.

Soy: 60% of All Ag Subsidies

But is beef, lamb, and mutton production in the West unfairly subsidized when compared to other kinds of food production in the U.S.? Recently, *Forest Guardians*, a Santa Fe-based anti-grazing group, used its rights under the Freedom of Information Act to “discover” that U.S. livestock producers received roughly \$250 to 275 million in subsidies through the USDA between 1990 and 2001. Now compare that to the USDA subsidies that soybean farmers received in just one year. **In 2001 alone, soybean growers received ten times what ranchers received in 12 years:** some \$2.7 billion in outright subsidies, price supports, loans, and give-backs. In 2001, the “government welfare” captured by the soybean industry was 60 percent of all the subsidies that the government doled out to agricultural producers.

As reported by the Associated Press in the *Hannibal Courier-Post*, economists believe that a government-guaranteed minimum price for soy has encouraged the over-planting of soybeans relative to corn and other crops. From

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1998, when the price for soy was guaranteed at \$5.26 per bushel, the U.S. acreage planted to soybeans increased by 25 percent. In 2001, U.S. farmers planted more than 74 million acres—mostly of genetically modified soybeans—for a record yield of 2,891 million bushels. As the market price drifted as low as \$4.00 per bushel, soybean farmers were gaining roughly a third of their crop's value from federal subsidies. Even some members of Congress reluctantly admitted that such a soy subsidy is excessive by any standard, but they remained unsuccessful in their attempts to substantially reduce the guaranteed minimum price for soy in order to save taxpayers \$1 billion a year.

Other countries, particularly Brazil and China, have cried foul, claiming that, by subsidizing soybeans at such a high rate, the U.S. is violating its own pledges to the World Trade Organization. Brazil's food policymakers contend that U.S. price supports for soy deprive its farmers of more than \$1 billion in revenue each year, and they are threatening to bring the issue to world courts.

Who Gets These Subsidies?

Just who do those subsidies go to? Look no further than one of the world's largest soybean processors, Archer Daniels Midland (ADM). Even though ADM is a lucrative Fortune 500 enterprise, it felt obliged to ask the USDA for some \$36,305 in commodity certificate subsidies and another \$64,416 in other farm subsidies over a seven year period. As James Bovard of the Cato Institute

has documented, "The Archer Daniels Midland Corporation has been the most prominent recipient of corporate welfare in recent American history. . . .At least 43 percent of ADM's annual profits are from products heavily subsidized or protected by the American government."

ADM's greediness does not stop there. In the late 1990s, three of ADM's executives were sent off to federal prison for conspiring with foreign corporations to fix prices and control the international market for lysine, a feed additive derived from soy. As Eric Schlosser reported in *Fast Food Nation*, ADM's president was secretly recorded telling Japanese executives, "Our competitors are our friends, and our customers are our enemies."

Nevertheless, according to the Environmental Working Group, ADM's subsidies from the USDA are not atypical, or for that matter, unusually high compared to those of other recipients. The Chairman of the American Soybean Association, Barton D. Roth of South Dakota, received some \$295,192 of farm subsidies, while ASA's President Dwain Ford, received \$130,313 over the same seven year period.

Ecological Subsidies

Economic price supports disguised as loans are not the only way that soybean farming is subsidized; soy farmers benefit from more profound "ecological subsidies" as well. Consider the following:

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Welfare Soybean Farming

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The Board of Directors

Jim Winder, Chair

Merle Lefkoff, Vice Chair

Dutch Salmon, Secretary

Bob Jenks, Treasurer,

*Assistant Commissioner, New Mexico State Land Office **

Roger Bowe, Rancher

Ernest Atencio, anthropologist, author, and environmentalist

Sterling Grogan, Biologist, Middle Rio Grande Conservancy District *

Dr. Kris Havstad, Supervisory Scientist, Jornada Experimental Range *

Frank Hayes, U.S. Forest Service District Ranger, Clifton, Arizona *

Mark McCollum, Rancher

Ed Singleton, Albuquerque Field Office Manager, Bureau of Land Management *

Virgil Trujillo, Manager, Ghost Ranch *

*** For informational purposes only**



The James Ranch: The Challenge of Grass- Finished Beef

“When local people are supporting local agriculture, you know you’re doing something right.” —
David James

If you spend any time with David and Kay James, it quickly becomes clear that they love a challenge. Ten years ago that’s exactly what they faced—a major challenge—when they decided to get into the business of producing and selling grass-finished beef from their ranch, located in the Animas Valley, north of Durango, Colorado.

Today, they sell their beef at three grocery stores and seven restaurants in town, at the weekly Farmer’s Market, and over the Internet, enjoying sales from Maine to California. The meat is profitable, and the margins are good (because there’s no middle man)—so good, in fact, that David and Kay have shed themselves of their other businesses to concentrate their considerable energies on expanding their James Ranch Grass-Finished Beef operation.

They rose to the challenge, in other words.

Family

As with all the many other enterprises that David and Kay have undertaken, the decision to wade into the risky business of selling grass-finished beef to a skeptical public was made with great deliberation and only after a lengthy process of self-education. And although it was ostensibly about business, it was fundamentally about *family*—a decision shared and supported by their five children and their spouses.

“As a family,” says Kay, “we have a common desire to live in harmony with each other and to keep the land in our trust as open space as a home for our extended

family.” This can be difficult at times and can require a great deal of unselfish courage. “The reward is, however, that as we get better at expressing those positive living qualities, we are making a better ‘climate’ for our family, our community, and our world.”

The road to grass-finished beef began in 1990 when David took a class in holistic resource management from Kirk Gadzia and began reading *The Stockman Grass Farmer*. In 1996, David was looking for a better way to manage his herd of cattle, spread out across a wide swath of public land in two states. The idea of finishing his steers on the lush grass of the large pastures they owned along the Animas River came as an afterthought.

It didn’t remain an afterthought for long.

Good for People, Animals, Land

A pivotal moment came when David and Kay met Jo Robinson, best-selling author and advocate for grass-fed food. Jo confirmed their opinion that grass-fed beef was good for people, animals, and the land. So, they took Jo’s advice: try the beef yourself.

“It’s the first thing you do,” says David, “because if you don’t have absolute confidence in the product, it won’t sell.” They butchered a steer and served hamburgers and steaks to the family. This was important because grass-fed beef does taste different than grain-fed beef. In any case, it passed the family taste test with flying colors.

The James family then took

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a critical second step: they invited the community, including important Durango decision-makers, to their ranch for a big party and taste test. It worked. With a “thumbs up” from the community, David and Kay set to work on a business plan, doing market research, and conducting focus group tests. They took out ads in the paper and began sponsoring the local public radio station in an effort to raise visibility.

That worked too. In fast-growing Durango, many residents quickly became aware that the James Ranch protected vital open space north of town. They became keen to see things stay that way.

Farmer’s Market

The next step was to begin selling the beef at the local Farmer’s Market. “Not only was it profitable,” says David, “but it was a great way to meet your customer and begin to build relationships.” David and Kay guarantee their beef—if a customer has a complaint, they address it immediately, even if it means taking meat back.

It hasn’t been necessary. “In ten years,” notes Kay, “we’ve only had to take back our meat from three customers.”

The next step was to get into local grocery stores and restaurants, which proved easier than they expected.

Optimism, goal-setting, passion, hard work, and a focus on the big picture are second nature to the whole James gang, as is a certain degree of natural rebelliousness (David thinks he might be related to the famous outlaw). David grew up in southern Cali-

fornia, where his father lived the American dream as a successful inventor. David attended the University of Redlands where he majored in business. But cattle were in his blood, and he spent every summer on a ranch. David met Kay, a city girl, at Redlands and after getting hitched they quickly settled on a goal: raise a large family in a rural setting.

They moved to Durango in 1961, “when land was cheap” says David, and got busy raising five children and hundreds of cows. “In the beginning, I ranched like everyone else,” says David, referring to his management style, “which means I lost money.”

Things became desperate in the 1970s, forcing the family to sell and subdivide a portion of the ranch. “I never want to do that again,” says David, “so I looked for another way.”

Goal

Ultimately, David and Kay realized that the problem wasn’t with their skills, energy, or lack of experience. What was lacking was the proper goal. “We really didn’t have a goal in the early days,” notes David, “other than not going broke.” After taking Kirk’s class, the family sat down to compose a mission statement. It took a year. It reads:

“The integrity and distinction of the James Ranch is to be

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The Challenge of Grass-Finished Beef

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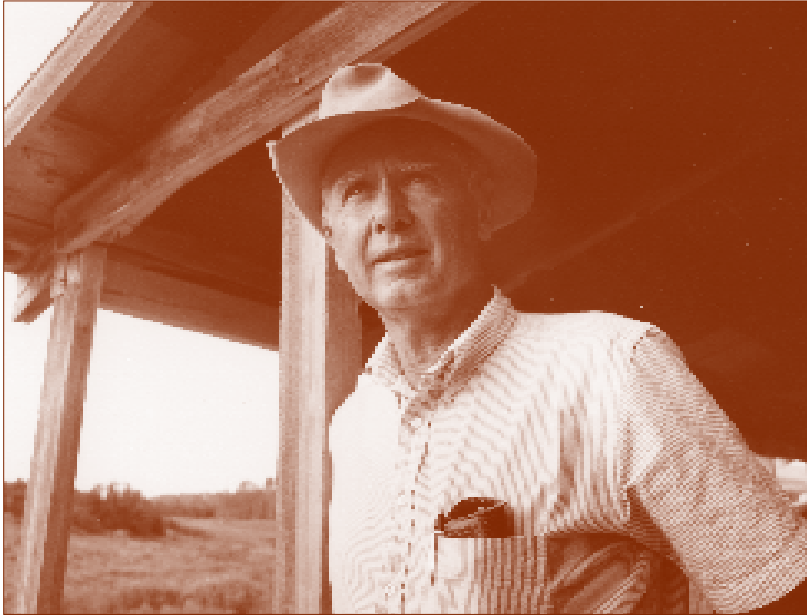


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The Challenge of Grass-Finished Beef

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preserved for future generations by developing financially viable agricultural and related enterprises that sustain a profitable livelihood for the families directly involved while improving the land and encouraging the use of all resources,



David James. (Photo courtesy of Courtney White.)

natural and human, to their highest and best potential.”

This statement has made all the difference to the family, who meet quarterly to review their progress. David puts it this way: “If you have your goal figured out, then the rest is easy. But without passion, a hard job becomes impossible.”

That passion has been passed on to their kids. Their son Danny has a grass-based cheese dairy operation going on the ranch, son Justin owns a part-interest in a local BBQ beef business, daughter Julie and her husband John own and manage a successful tree farm on the property, and daughter Jennifer and her husband grow organic vegetables and flowers for the local Farmer’s Market.

Vision

Goal-making didn’t stop there. The family has developed a vision for their land and community 100 years into the future. It looks like this:

- Lands that are covered with biodiverse vegetation.
- Lands that boast functioning water, mineral, and solar cycles.
- Abundant and diverse wildlife.
- A community benefiting from locally grown, healthy food.
- A community aware of the importance of agriculture to the environment.
- Open space for family and community.

And they have written out the lessons they have learned over the past dozen years:

- Imitating nature is healthy.
- People like to know the source of their food.
- Ranching with nature is socially responsible.
- Ranching with nature gives the rancher sustainability.

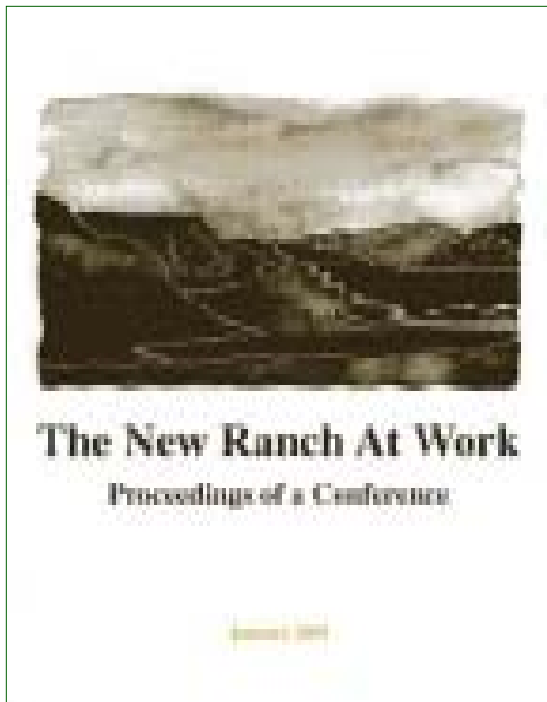
All of which brought the James family to grass-fed food. “It’s hard work,” says David, “but it’s incredibly rewarding too.”

Perhaps a quote from a wall in an old church in Essex, England, sums up the James’ philosophy best:

*A vision without a task
Is but a dream.
A task without a vision
Is drudgery.
A vision and a task
Is the hope of the world.*

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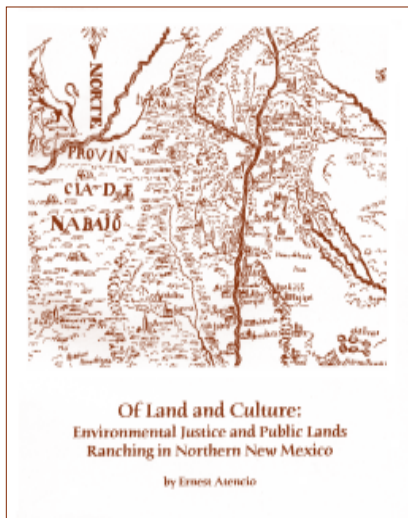
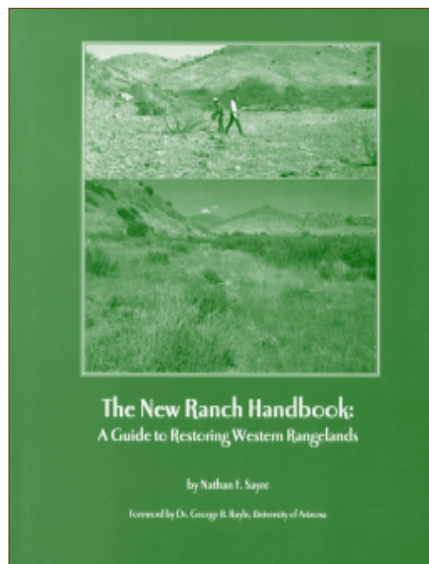
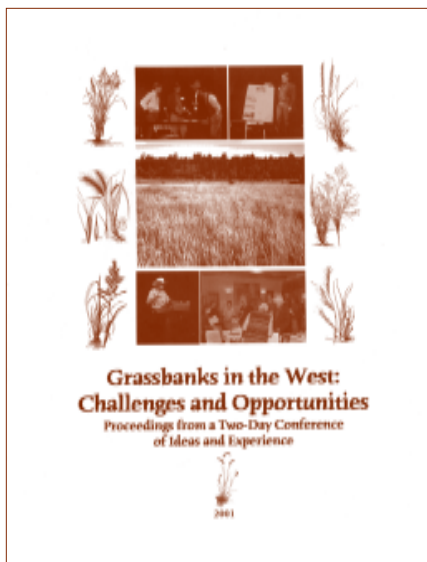




Proceedings of our First Annual Conference, *The New Ranch at Work*, are now available (\$5). We are working on proceedings for the Second Annual Conference. (Just turn the page for a peek at that event!)

And don't forget our other publications, shown here. All are available by calling 505-820-2544.

[Top left] *Grassbanks in the West*, \$3; [top right] *The New Ranch Handbook*, \$13.50; [bottom left] *Of Land and Culture*, \$5; [bottom right] *Collaborative Stewardship*, \$3. All prices include shipping and handling.



*Quivira's 2nd Annual
Conference:*
**Ranching
at the
Crossroads:
Forging a
West that
Works**



[Above] Sherry Tippie; [top right] the room at the Hilton with a full crowd; [middle right] Tim Herfel of the EPA; [bottom right] Kris Havstad asking a question, with recorder Catalina Reyes trying to get the microphone close enough to the 6'4" scientist. (All photos on pages 10-12 are courtesy of Gene Peach.)

"Group Holds Meeting In Search of West That Works" is how Associated Press reporter Richard Benke led his story on our Second Annual Conference, held January 16-18, 2003, at the Hilton Hotel in Albuquerque.

Nearly four hundred ranchers, conservationists, scientists, state and federal land managers, and others attended our Conference, easily breaking the previous attendance record (at this rate we may need to move to the Convention Center!). Participants heard from speakers as diverse as Sherry Tippie, who directs beaver rescue efforts in Colorado, Tweeti Blancett, a rancher struggling against the oil-and-gas industry in northwest New Mexico, Gary Nabhan, who advocates for farmer's markets, and Craig Allen, who dished up the latest scientific research on forests and fire.

Taken together, all the speakers and participants seemed determined to uncover solutions to persistent problems in the West the old-fashioned way: by dialogue and collaboration.

The Conference was capped by our Second Annual Clarence Burch Award Banquet, which featured author Jo Robinson talking about the environmental, animal, and human



health advantages of eating grass-fed food. And we actually **served** grass-fed beef for the main course, thanks to Duke Phillips and the Lassater

(con't on page 11)





Ranching at the Crossroads: Forging a West that Works

(con't from page 10)

[Top left] The chef at the Hilton and Duke Phillips, who supplied the grass-fed beef for the Banquet; [middle left] Jerrie Tipton regales the audience with stories of how she and her husband, Tony [bottom left] use cows and bacteria to restore land; [top right] Ernie Atencio, Executive Director of the Taos Land Trust; [middle right] Doug Fraser, Chair of the Rio Grande Chapter of the Sierra Club, asks a question; [bottom right] Dennis Moroney and Guy McPherson, Professor at the



University of Arizona, chat in between sessions.



Ranch!! The awardees were Sid Goodloe and Bill Zeedyk, who were honored for their leadership as well as their innovative approaches to riparian restoration in the region.

Perhaps the title of a *Santa Fe New Mexican* editorial on the Conference summed it up best: "Hope On The Range."

(more photos on page 12)



Ranching at the Crossroads: Forging a West that Works

(con't from page 11)



[Top left] Rancher Twheeti Blancett; [above] Alvin Warren, Director of the Indigenous Mapping Initiative; [top right] many conversations were carried on during the breaks and at lunch [top right]; [middle right] Daniel Kemmis, Director of the Center for the Rocky Mountain West; [bottom near right] Jan-Willem Jansens of Earthworks Institute; [bottom far right] Burch Award winner Sid Goodloe and his wife Cheryl.



Periodic retreating, like fasting, is probably part of nature's plan.

In mid-January, after a hectic year came to a noisy crescendo with an intense week of Conferencing and Retreating in Albuquerque, I decided I needed to clear my head of sound and motion. I needed space and peace to straighten out the many strands of thought that were occupying an increasingly large amount of my diminishing mental capacity. I needed fresh air to organize, prioritize, clarify, and make sense of competing, sometimes conflicting, ideas, notions, hunches, hopes, and dreams.

In other words, I needed to retreat to go forward.

So, in late February, I jumped in the truck and drove rapidly to the James Ranch, located on a pastoral stretch of the Animas River, north of Durango. Once happily ensconced in David and Kay's quaint A-frame, I laid every idea I had on the table, literally, and began the laborious process of uncovering a hidden unity that might provide a semblance of order amongst the chaos.

In addition to Quivira work, I tossed in personal goals as well, including plays and books I wanted to author, essays on parenting and "growing up Western," photography projects, novels, and even a trio of children's books that I wanted to compose.

It quickly became an exhilarating, if daunting, lifelong "To Do" list.

I searched for a theme that connected these projects together—the personal stuff, The

Quivira Coalition, the New Ranch, The Radical Center, a land health movement, restoration, education, sustainability, profitability, food, wildlife, family, culture, history, soil, grass, and water. My motto up to this point had been simply "Do good work and have fun doing it." But clearly this was not going to sustain me for much longer, not without imbibing toxic levels of caffeine.

Clearly, I needed a mission statement. Trouble is I suffer from a college-bred skepticism of "themes" and other forms of bumper-sticker reductionism. Knowing that life looked better in shades of gray than in black-and-white was one of the reasons I co-founded The Quivira Coalition in the first place. At the same time, I knew a thread existed someplace among the books, projects, and ideas. There had to be.

There was.

Nature's Model

During the course of her talk at the Banquet event of our Second Annual Conference, Jo Robinson made an eloquent case for the raising and consumption of grass-finished beef, arguing that recent scientific research demonstrated that humans are healthier consuming a "Paleolithic" diet rich in Omega 3s and other essential nutrients found in grass-fed food. Her mantra, "If it's in the feed, it's in the food," rang loud and clear around the room.

Jo concluded by arguing for a return to the food nature meant for us to eat, for the way

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The Far Horizon

by Courtney White

"Without the threat of environmental disaster caused by the short-sighted unbalancing of natural forces, how are we to bring about positive change in the world?"—

satire from *The Onion*

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The Far Horizon

(con't from page 13)



Bill Zeedyk, explaining the math behind Induced Meandering. (Photo courtesy of Tamara Sherburn.)

nature meant animals to be raised, and for the way in which the environment was supposed to function properly. Her final slide said simply: “Returning to Nature’s Model.”

Sitting at the little table in the James’ A-frame, it dawned on me that was exactly what The Quivira Coalition has been trying to accomplish since its inception. It was the message Jim Winder pushed the first time I met him—how to graze livestock in nature’s image. It was the underlying theme of our just concluded Conference—how to forge a West that Works by understanding and employing natural principles. And it was the core of all

our work in between—that meaningful, long-term ecological and economic health is only possible when we work with nature, not against it.

It was the same message that Kirk Gadzia has been teaching for years—that we need to learn *from* nature, instead of trying to “break” ourselves on the “rocky shore” of fundamental ecological principles, as has too often been the case. In fact, much of the substance of progressive ranch management, including the issues of timing, intensity, and frequency of livestock impact on the land, and questions of recovery, movement, planning, and profit, involve “returning to nature’s model” of her-

bivory in grass-dominated landscapes.

It is the same message that Bill Zeedyk has been promoting, in his quiet way, through his work. “Thinking like a river” and “Letting nature do the work” are two phrases often employed by Bill, who has pioneered a riparian restoration strategy premised on nature’s model. His approach is based on humility rather than on arrogance, and on healing rather than hurting. The goal of Induced Meandering, for instance, is to get creeks and rivers back into health “by goosing nature along,” as Bill puts it, with simple structures and small flood events, rather than strong-arming it with cement and impatience.

It is the same message, though in different language, taught by a new generation of scientists and specialists in range, forest, and riparian systems. From issues of functionality, biotic integrity, and soil stability to strategies focused on restoring keystone ecological processes, the goal of the scientific community is today, in the words of forest ecologists Craig Allen and Melissa Savage, to “reset ecosystem trends toward an envelope of ‘natural variability,’ including the reestablishment of natural processes.”^[1]

Their goal, in other words, is getting back (or going forward) to nature’s model.

Whether it is Lani (Laming) Malmberg using her goats to mow down noxious weeds, Bill deBuys working hard on his Grass Bank so that fire can be restored to

(con't on page 15)



the mountains of northern New Mexico, Tony Benson and Mike Jones pounding sagebrush to death with their cattle near Taos, Terry Wheeler or the Tiptons jump-starting natural processes on arid mine tailings with their cattle “poop-and-stomps,” or dozens of other acts healing, maintenance, or improvement, the theme is the same: nature has the best ideas. And in the long run, they are the only models that will be truly sustainable ecologically and economically.

As Aldo Leopold noted so many years ago, “Healthy land is the only profitable land.”

The Iron Triangle

While wrestling with this emerging theme, I was suddenly struck with a desire to create a diagram. Normally, I shun graphs and diagrams like the plague, especially avoiding anything to do with circles, triangles, or pentagons. But suddenly I found myself drawing my very own “Iron Triangle” on paper, as if I were some environmental absolutist expounding on the evils of livestock grazing on public land. Had I gone crazy in the little A-frame? Had my coffee consumption finally passed a critical threshold?

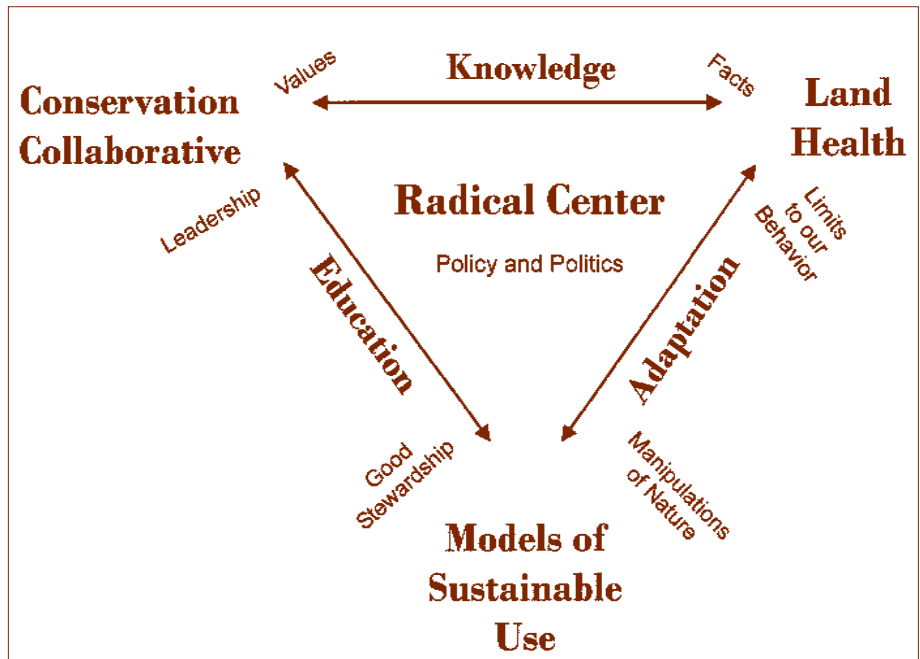
No, a logical interrelationship suddenly seemed to reveal itself. On one corner I wrote “Quivira Coalition” with the word “conservation collaborative” underneath. On another corner I wrote “The New Ranch” with the words “working models of sustainability” underneath. Then I

wrote “Land Health” at the third corner of my Iron Triangle, followed by the words “nature’s model.”

Then I drew the dreaded Arrows between the three corners, filling them in with works such as Education, Demonstration, Restoration, Profit, Food, Leadership,

The Far Horizon

(con’t from page 14)



Monitoring, Labor, Values, and so forth. Each represented an activity or a program that I knew was already taking place in the real world.

When I wrote the words “The Radical Center” in the center of the Triangle, I knew I was in trouble. It made too much sense, and it was far too neat and tidy. I thought about erasing words, but it was too late.

The truth is conservation collaboratives, such as The Quivira Coalition, are forming all across the West with the goal of creating examples of sustainable use of lo-

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The Far Horizon

(con't from page 15)

¹Allen, Craig; Savage, Melissa; Falk, Donald; Suckling, Kieran; Swetnam, Thomas; Schulke, Todd; Stacey, Peter; Morgan, Penelope; Hoffman, Martos; Klingel, Jon, "Ecological Restoration of Southwestern Ponderosa Pine Ecosystems: A Broad Perspective," Ecological Applications 12(5) 2002, pp. 1418-1433.

cal natural resources based on ideas drawn from nature's model.

Whether it is EcoResults! in Flagstaff, Arizona, helping ranchers get paid for healing damaged land, or the Chico Basin Ranch, on the Front Slope of Colorado, discovering all sorts of conservation values on the ranch that city-dwellers are willing to support, or the James Ranch producing grass-finished beef that is eagerly consumed in Durango, or a nonprofit like Earthworks which works to restore land collaboratively in the Galisteo basin south of Santa Fe—a version of the Iron Triangle is in operation someplace. That's because the goal for each is an interlocking of collaboration, land health, and sustainability.

And in the center of it all is

The Radical Center—the political will of all the participants. Currently, this political will is small, but as time goes by, and as the three sides of this equation grow stronger, The Radical Center, like a whirlpool, will gather momentum and strength as well.

At least I hope so.

Before packing up and leaving my little sanctuary, I decided to take a stab at articulating the dreaded mission statement. I wrote it down quickly, knowing that I would, in a fit of unavoidable skepticism, revisit it later—probably a few miles down the road. Here's what I wrote:

“Achieving sustainability in our native and adopted landscapes by returning to nature's model of land and human health.”

More on this later.



We Still Need YOU to Join the Radical Center!

Please join us in the call to end the civil war over livestock grazing in the American West. By mobilizing the Radical Center, we hope to end the destructive feuding that threatens much of what we all value in the “native home of hope.”

Recent signatories to the “Invitation To Join The Radical Center” include:

- Bill Kittredge;
- Patricia Limerick;
- Curt Meine;
- Peter Raven;
- Theodore Roosevelt IV;
- Don Snow;
- Steve Trimble;
- Stewart Udall;
- Charles Wilkinson; and
- many more!

Please add your name to list! To read the entire Invitation, and to sign up for the Radical Center, please visit our web site at: www.quiviracoalition.org

Thank You!

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Welfare Soybean Farming

(con't from page 5)

1. Soy farmers in most states are exempted from seasonal limits on killing deer if the deer enter their fields to forage, as thousands of white-tailed deer do each year in Midwestern states. “You cannot eat soybean products in this country without the blood of deer hidden back where they were grown,” claims Richard Nelson, author of *Heart and Blood*, a book on human interactions with wildlife in North America. “Intensive deer management can be thought of as a kind of agricultural subsidy; if it weren’t for that management, it would be difficult to grow crops in many states today.”

2. Soybean production in the U.S. derives much of its success from an even more ancient subsidy: the development of deep, fertile soils from thousands of years of native grassland productivity in the Prairie and Plains States. As Wes Jackson has explained in *New Roots for Agriculture*, “We lose an average of one-sixteenth inch of soil per acre [per year of cultivating annual crops such as soybeans]. Estimates of how long it takes for one inch of topsoil to be created, under natural conditions, range from three hundred to one thousand years...the United States [has been] losing over four billion tons of soil each year through water erosion,” and much of that has been on the 74 million acres that are planted to soy monoculture. In short, soybean farmers have already squandered a “subsidy” of soil fertility that took thousands of years to develop.

3. Unlike rangelands dominated by dozens of native perennial grasses, forbs, and shrubs, soy-

bean agro-ecosystems are dominated by a single annual plant, and a few exotic weeds, none of which provide much forage (or habitat) for wildlife other than deer. Soybean farms are typically artificial landscapes created to support an exotic crop for three to five months, using fertilizers and water often derived from distant sources. In contrast, the majority of the rangelands of the West still support more native wildlife—from migratory birds to soil microbes—than any soybean field could ever harbor.

Biodiversity Effects

The rapid adoption of herbicide-tolerant soybean varieties has raised environmental concerns about long-term effects on biodiversity that may ultimately be far more profound than the effects of overgrazing. In 1996, Roundup Ready soybean varieties became available from Monsanto, allowing the use of glyphosate (Roundup) as a post-emergence herbicide in soybean fields without damage to the beans. This shift in soy varieties resulted in the application of 30 percent more herbicides per acre than the amounts used in the cultivation of conventional soybean varieties. By 1998, roughly 38 percent of the total U.S. soybean acreage was planted to soy varieties developed through the use of biotechnologies to ensure tolerance to a variety of herbicides. By 2001, more than 60 percent of the soybean fields in the U.S. were planted with geneti-

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Gary Nabhan speaking at Quivira's Second Annual Conference. (Photo courtesy of Gene Peach.)



Welfare Soybean Farming

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cally modified (GMO) soybeans, making them the GMO crop with the largest acreage in the world. However, as a May 3, 2001 report from *Cropchoice News* has detailed, “Contrary to the promises of Monsanto, farmers are applying more herbicides to Roundup Ready soybean plants and reaping lower

believe that this increase in soy allergies may be because of an increase in the use of genetically modified soybeans.

Let us remember that efforts to raise grass-finished beef and lamb sustainably keep native perennial vegetation in place, which then functions for soil erosion control and wildlife habitat.

The beef, mutton, and lamb raised this way are often richer in omega-3 fatty acids, the good fats, but are generally leaner and richer in flavor as well. (See pages 20-22.) The nutritional benefits and the on-farm ecosystem services provided by Western ranchers are not their only contributions to local communities and their economies either. When they sell their products locally, recruit employees locally, and collaborate with their neighbors on grass banks and other initiatives for their collective good, both the dollars and the good will generated reinvigorate the community. Contract-growing for ADM, Tyson, or ConAgra does not necessarily result in investing the same kind of economic benefits, ecological services, or ethical reinforcement for good land stewardship in a community.

The next time you choose your main course for dinner, you may want to consider grass-finished beef or lamb rather than soyburgers or tofu. Those who contend that Western ranchers are recipients of excessive government “welfare” might want to redirect their concerns toward the soybean industry. While Western ranching has not been unequivocally good

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A field of soy beans, with weeds. (Photo courtesy of University of Nebraska Institute of Agriculture and Natural Resources Cooperative Extension.)

yields from them compared to conventional varieties.” According to new field research by Dr. Charles Benbrook of the Northwest Science and Environmental Policy Center in Sandpoint, Idaho, the yields of herbicide-tolerant soy varieties have measurably decreased because common weeds in soybean fields have also become herbicide-resistant!

Health, Community, Ecological Benefits from Grassfed Food

In addition to the environmental concerns increased herbicide use poses, scientists in the United Kingdom documented a 50 percent increase in soy allergies reported to them in one year. According to *Soy Info Online*, scientists

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differentiate between “good” HDL cholesterol and “bad” LDL cholesterol. Instead, they lumped both types together and focused on lowering the sum of the two. Polyunsaturated oils seemed to do this better than monounsaturated oils. We now know they achieve this feat by lowering both our bad and our good cholesterol, in effect throwing out the baby with the bathwater. Monounsaturated oils leave our HDL intact.

In hindsight, it’s not surprising, then, that our death rate from cardiovascular disease remained high in the 1970s and 80s even though we were eating far less butter, eggs, bacon grease, and red meat: We had been told to replace saturated fat with the wrong kind of oil.

During this same era, our national health statistics were highlighting another problem, this one even more ominous: an increasing number of people were dying from cancer. Why were cancer deaths going up? Was it the fact that our environment was more polluted? That our food had more additives, herbicides, and pesticides? That our lives were more stressful? That we were not eating enough fruits and vegetables?

Yes. Yes. Yes. And yes.

But there was another reason we were losing the war against cancer: the supposedly “heart-healthy” corn oil and safflower oil that the doctors had advised us to pour on our salads and spread on our bread contained high amounts of a type of fat called “omega-6 fatty acids.”

There is now strong evidence that omega-6s can make cancer cells grow faster and more invasive. For example, if you were to inject a colony of rats with human cancer cells and then put some of the rats on a corn oil diet, some on a butterfat diet, and some on a beef fat diet, the ones given the omega-6 rich

corn oil would be afflicted with larger and more aggressive tumors.

Second Helping

Meanwhile, unbeknownst to us, we were getting a second helping of omega-6s from our animal products. Starting in the 1950s, the meat industry had begun taking our animals off pasture and fattening them on grains high in omega-6s, adding to our intake of these potentially cancer-promoting fats.

In the early 1990s, we learned that our modern diet was harboring yet another unhealthy fat: trans-fatty acids. Trans-fatty acids are formed during the hydrogenation process that converts vegetable oil into margarine and shortening. Carefully designed studies were showing that these manmade fats are worse for our cardiovascular system than the animal fats they replaced. Like some saturated fats, they raise our bad cholesterol. But unlike the fats found in nature, they also lower our good cholesterol—delivering a double whammy to our coronary arteries. “Maybe butter is better after all,” conceded the health experts.

Conflicting Advice

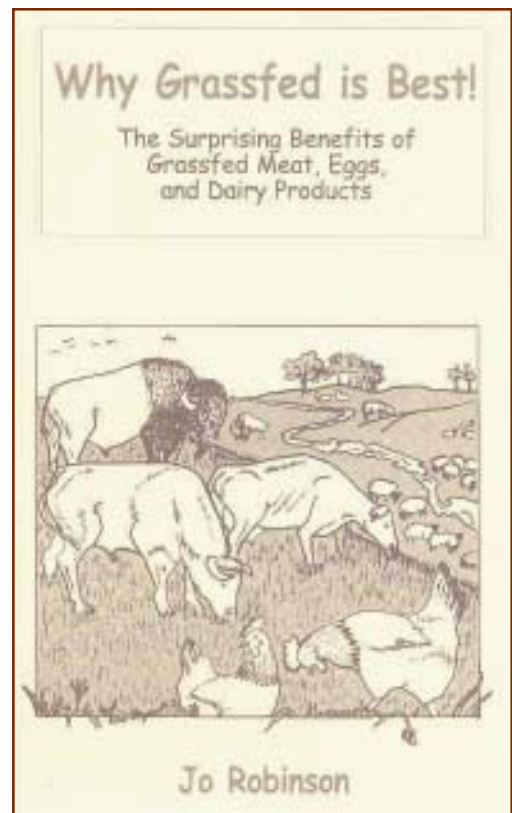
Given all this conflicting advice about fat, consumers were ready to lob their tubs of margarine at their doctors. For decades they had been skimping on butter, even though margarine tasted little better than salty Vaseline. Now they were being told that margarine might *increase* their risk of a heart attack!

Some people revolted by trying to abandon fat altogether. For breakfast, they made do with dry toast

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Why Grassfed is Best

(con’t from page 1)



This article was excerpted from articles on Jo’s website, www.eatwild.com



Why Grassfed is Best

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Jo Robinson. (Photo courtesy of Mike Siegel.)

and fat-free cottage cheese. For lunch, they ate salad greens sprinkled with pepper and vinegar. Dinner was a skinless chicken breast poached in broth. Or better yet, a soy burger topped with lettuce. Dessert? Well, after all that self-denial, what else but a big bowl of fat-free ice cream and a box of Snackwell cookies. Thank goodness calories no longer counted! Only fat made you fat!

Or, so the diet gurus had told us. Paradoxically, while we were doing our best to ferret out all the fat grams, we were getting fatter and fatter. We were also becoming more prone to diabetes. Replacing fat with sugar and refined carbohydrates was proving to be no more beneficial than replacing saturated fat with polyunsaturated oils.

At long last, in the mid-1990s, the first truly good news about fat began to emerge from the medical labs. The first fats to be given the green light were the monounsaturated oils, the ones that had helped protect the health of the Mediterraneans for so many generations. These oils are great for the heart, the scientists discovered, and they do not promote cancer. They are also a *deterrent* against diabetes. The news came fifty years too late, but it was welcome nonetheless. Please pass the olive oil!

Stearic acid, the most abundant fat in beef and chocolate, was also found to be beneficial. Unlike some other saturated fats, stearic acid does not raise your bad cholesterol and it may even give your good cholesterol a little boost. Hooray!

Good Fat

Then, at the tail end of the 20th century, two more “good” fats were added to the roster—omega-3 fatty acids and conjugated linoleic acid, or CLA, the fat found in the meat and dairy products of ruminants. Both of these fats show signs

of being potent weapons against cancer. However, the omega-3s may be the best of all the good fats because they are also linked with a lower risk of virtually all the so-called “diseases of civilization,” including cardiovascular disease, depression, ADHD, diabetes, Alzheimer’s disease, obesity, asthma, and autoimmune diseases.

So, some of you may be wondering, what does this brief history of fat have to do with grassfarming? **Few people realize that all omega-3s originate in the green leaves of plants and algae.** Fish have large amounts of this good fat because they eat small fish that eat smaller fish that dine on omega-3 rich algae and phytoplankton. Grazing animals have more omega-3s because they get the omega-3s directly from the grass. In both cases, the omega-3s are ultimately passed on to humans, the top of the food chain.

Nutritional Benefits

Products from grassfed animals offer us more than omega-3s. They contain significant amounts of two “good” fats, monounsaturated oils and stearic acid, but no manmade trans-fatty acids. They are also the richest known natural source of CLA and contain extra amounts of vitamin E and beta-carotene. Finally, grassfed meat is lower than feedlot meat in total fat and calories, making it ideally suited for our sedentary lifestyles.

For example, a sirloin steak from a grassfed steer has about one half to one third as much fat as a similar cut from a grainfed steer. In fact, grassfed meat has about the same fat content as skinless chicken or wild deer or elk.¹ When meat is this lean, it actually lowers your LDL cholesterol levels.²

Because grassfed meat is so lean, it is also lower in calories. (Fat

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has 9 calories per gram, compared with only 4 calories for protein and carbohydrates. The greater the fat content, the greater the number of calories.) A 6-ounce steak from a grass-finished steer has almost 100 fewer calories than a 6-ounce steak from a grainfed steer. If you eat a typical amount of beef (66.5 pounds a year), switching to grassfed beef will save you 17,733 calories a year—without requiring any willpower or change in eating habits. If everything else in your diet remains constant, you'll lose about six pounds a year. If all Americans switched to grassfed meat, our national epidemic of obesity might begin to diminish.

I don't believe it's a matter of luck or chance that grassfed products have so many of the good fats but so few of the bad. In fact, I'll wager that the more that is discovered about fat in the coming years, the more grassfed meat will shine. The reason for my confidence is simple: **our bodies are superbly adapted to this type of food.**

In the distant past, grassfed meat was the only meat around. Our hunter-gatherer ancestors either brought home a grazing ruminant such as elk, deer, or bison, or a predator that preyed on those animals. Either way, the nutrients found in grass made their way into the animals' flesh, and ultimately, into our own.

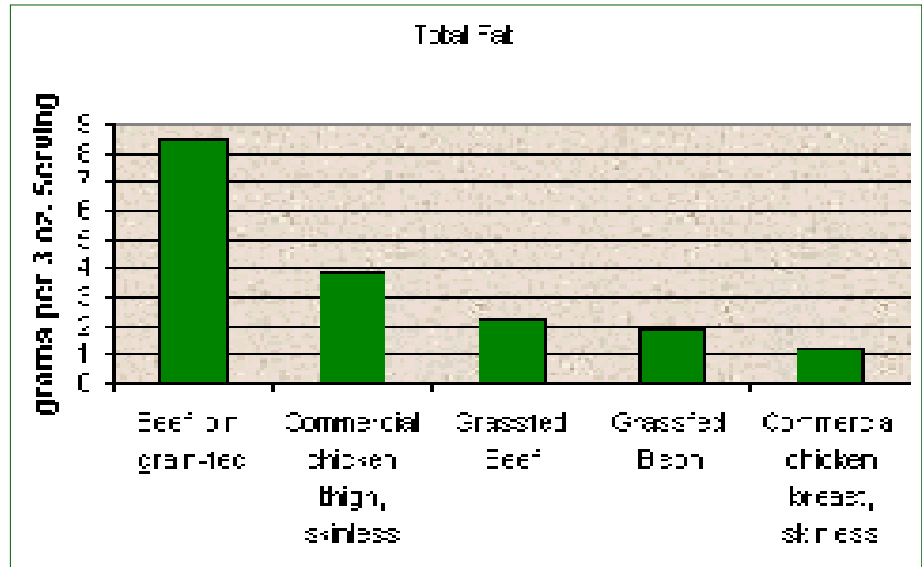
Over the eons, our bodies began to "expect" the kinds and amounts of fat found in grassfed meat. Our hearts counted on the omega-3s to stabilize their rhythm and keep blood clots from forming. Our brain cells relied on omega-3s to build flexible, receptor-rich membranes. Our immune systems used the omega-3s and CLA to help fend off cancer. And because wild game is relatively lean, our bodies weren't burdened with

unnecessary amounts of fat or calories.

When we switch from grainfed to grassfed meat, then, we are simply returning to our original diet, the diet that is most in harmony with our physiology. Every cell and system of our bodies function better when we eat products from animals raised on grass.

Why Grassfed is Best

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Extra Omega-3s

Although grassfed meat is low in total fat and "bad" fat (including saturated fat), it has two to six times more omega-3 fatty acids. Omega-3s play a vital role in every cell and system in your body. For example, of all the fats, they are the most heart friendly. People who have ample amounts of omega-3s in their diet are less likely to have high blood pressure or an irregular heartbeat. Remarkably, they are 50 percent less likely to suffer a heart attack.³

Omega-3s are essential for your brain as well. People with a diet rich in omega-3s are less likely to suffer from depression, schizophrenia, attention deficit disorder (hyperactivity), or Alzheimer's disease.

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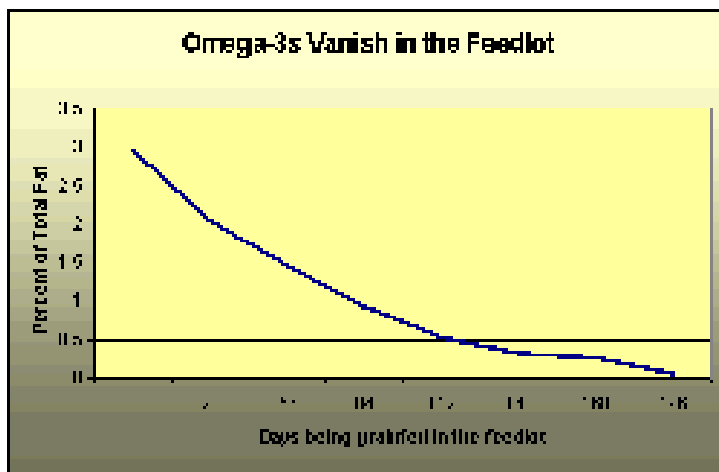


Why Grassfed is Best

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[“<http://www.eatwild.com/nutrition.html>”²⁴]

Another benefit of omega-3s is that they may reduce your risk of cancer. In animal studies, these essential fats have slowed the growth of a wide array of cancers and also kept them from spreading.⁵ Although the human research is in its infancy, re-



searchers have shown that omega-3s can slow or even reverse the extreme weight loss that accompanies advanced cancer and also hasten recovery from surgery.^{6,7}

Omega-3s are most abundant in seafood and certain nuts and seeds such as flaxseeds and walnuts, but they are also found in animals raised on pasture. The reason is simple. Omega-3s are formed in the chloroplasts of green leaves and algae. Sixty percent of the fatty acids in grass are omega-3s. When cattle are taken off omega-3 rich grass and shipped to a feedlot to be fattened on grain, they begin losing their store of this beneficial fat. Each day that an animal spends in the feedlot, its supply of omega-3s is diminished.⁸ The graph on this page illustrates this rapid decline.

When chickens are housed indoors and deprived of greens, their meat and eggs also become artificially low in omega-3s. Eggs from pastured hens can contain as much as 20 times more omega-3s than eggs from factory hens.⁹

Switching our livestock from grass to grain is one of the reasons our

modern diet is deficient in these essential fats. It has been estimated that only 40 percent of Americans consume a sufficient supply of these nutrients. Twenty percent have levels so low that they cannot be detected.¹⁰ Switching to grassfed animal products is one way to restore this vital nutrient to your diet.

The CLA Bonus

Meat and dairy products from grassfed ruminants are the richest known source of another type of good fat called *conjugated linoleic acid* or CLA. When ruminants are raised on fresh pasture alone, their products contain from three to five times more CLA than products from animals fed conventional diets.^{10,11}

CLA may be one of our most potent defenses against cancer. In laboratory animals, a very small percentage of CLA—a mere 0.1 percent of total calories—greatly reduced tumor growth.¹² There is new evidence that CLA may also reduce cancer risk in humans. In a Finnish study, women who had the highest levels of CLA in their diet had a 60 percent lower risk of breast cancer than those with the lowest levels. French researchers compared CLA levels in the breast tissues of 360 women. The women with the most CLA in their tissue (and thus the most CLA in their diets) had a 74 percent lower risk of breast cancer than the women with the least CLA. Switching from grainfed to grassfed meat and dairy products places women in this lowest risk category.¹³ Researcher Tilak Dhiman from Utah State University estimates that you may be able to lower your risk of cancer simply by eating the following grassfed products each day: one glass of whole milk, one ounce of cheese, and one serving of meat. You would have to eat five times that amount of

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grainfed meat and dairy products to get the same level of protection.

Super Healthy Milk

Most cartons of milk in the supermarket show a picture of cows contentedly grazing on grass. Unfortunately, 85 to 95 percent of the cows in American dairies are now being raised in confinement. The only grass they eat comes in the form of hay, and the ground they stand on is a variable blend of dirt and manure.

The reason for confining our cows in feedlots and feeding them grain rather than grass is that they produce more milk—especially when injected with bi-weekly hormones. Today’s grainfed cows produce three times as much milk as the old family cow of days gone by.

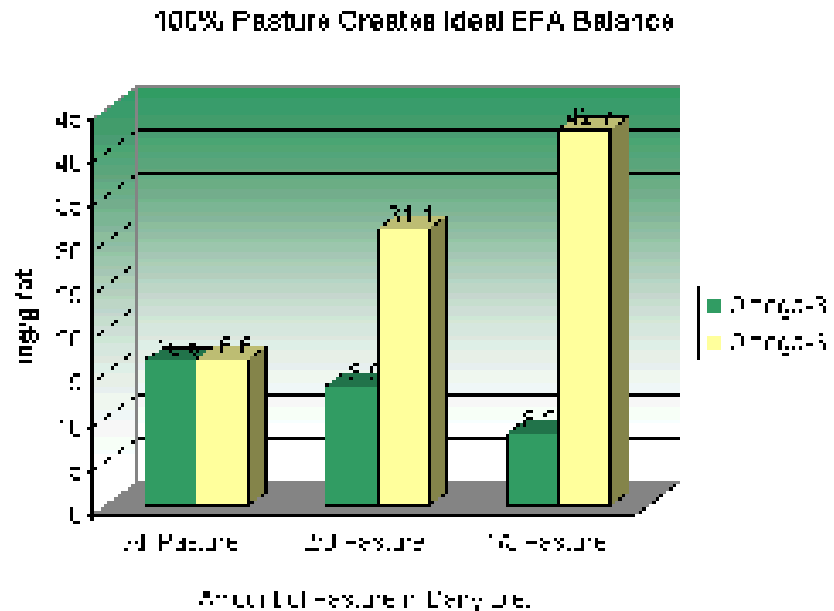
But with all the emphasis on quantity, the quality of our milk has suffered. One of the biggest losses has been in its CLA content. The milk of pastured cows also contains an ideal ratio of essential fatty acids or EFAs. There are two families of EFAs—omega-6 and omega-3 fatty acids. Studies suggest that if your diet contains roughly equal amounts of these two fats, you will have a lower risk of cancer, cardiovascular disease, autoimmune disorders, allergies, obesity, diabetes, dementia, and various other mental disorders.

Take a few moments to study the chart on this page showing the EFA content of milk from cows fed varying amounts of grass and grain. The green bars represent the amount of omega-3 fatty acids in the milk, and the yellow bars represent the amount of omega-6 fatty acids. As you can see, when a cow gets all her nutrients from pasture (represented by the two bars on the far left), her milk has an ideal ratio of omega-6 to omega-3 fatty acids. Take away one third of the grass and replace it with grain or other

supplements (represented by the two bars in the middle) and the omega-3 fatty acid content of the milk goes down while the omega-6 fatty acid content goes up, upsetting an essential balance. Replace two-thirds of the

Why Grassfed is Best

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pasture with a grain-based diet (illustrated by the two bars on the far right) and the milk will have a very top-heavy ratio of omega-6 to omega-3 fatty acids. The healthiest milk comes from cows that graze fresh pasture without any added grain or “by-product feedstuff.”

Milk from pastured cows offers additional health benefits. (I’m beginning to sound like a TV infomercial: “But wait! There’s more!”) In addition to giving you five times more CLA and an ideal balance of EFAs, grassfed milk is higher in beta-carotene, vitamin A, and vitamin E. This vitamin bonus comes, in part, from the fact that fresh pasture has more of these nutrients than grain or hay. (When grass is dried and turned into hay, it loses a significant amount

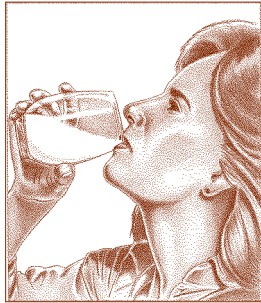
(Data from Duckett, S. K., D. G. Wagner, L. D. Yates, H. G. Dolezal, and S. G. May. “Effects of Time on Feed on Beef Nutrient Composition.” J Anim Sci 71, no. 8 (1993): 2079-88.)

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Why Grassfed is Best

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of its vitamin content.) These extra helpings of vitamins are then transferred to the cow's milk.

There's another factor involved as well. A grazing cow produces less milk than a cow fed a grain-based diet. This turns out to be a bane for the farmer but a blessing for the consumer. The less milk a cow produces, the more vitamins in her milk. This is because a cow has a set amount of vitamins to transfer to her milk, and if she's bred, fed, and injected to be a Super Producer, her milk has fewer vitamins per glass. It's a watered down version of the real thing.

Oh, I almost forgot the best part of all. Dairy products from grassfed cows taste delicious, and they have a bright yellow color that is visible proof of their bonus supply of beta carotene. Serve cheese or butter from a grass-based dairy, and everyone will notice the difference. Also, your cookies and cakes will have that rich buttery color that hasn't been seen since Grandma's day. (You do bake, don't you?)

So where can you find milk from pastured cows? Unfortunately, the label won't tell you whether the cows were raised on grass or grain. Even an organic label is no guarantee that the cows got any of their diet from fresh pasture. At the present time, however, there are two large organic dairies that make a point of raising their cows on pasture—Organic Valley and Natural by Nature, an east coast brand. Look for them in your dairy case.

In addition, a number of farmers listed on <http://eatwild.com> have pasture-based dairies. If you can find a local farmer who will sell you dairy products from all pasture-fed cows, you have found liquid gold.

You Are What Your Animals Eat

In my on-going investiga-

tion into pasture-based farming, I've stumbled upon an alarming void: few animal scientists care about the link between the diet of our livestock and the nutritional content of their products. "Feed animals anything you want," the research suggests, "and it makes no difference to their meat, milk, or eggs."

Browse through the animal science journals, for example, and you'll see that the goal of most feeding experiments is to increase production and minimize costs. Period. As long as the feed is cheap and the animal gets fat, anything goes.

Here's a glaring example. A 1999 study published in *The Journal of Animal Science* explored the desirability of feeding stale chewing gum *still in its wrappers* to cattle. Wonder of wonders, the article concluded that a bubble gum diet was a net benefit. I quote: "Results of both experiments suggest that [gum and packaging material] may be fed to safely replace up to 30% of corn-alfalfa hay diets for growing steers with advantages in improving dry matter intake and digestibility." In other words, feed a steer a diet that is 30 percent bubblegum and wrappers, and it will eat more. Needless to say, there was no mention in the article of the nutritional content of the resulting meat. When I first read these articles, I assumed that no one would actually feed bubblegum to their animals, despite the "positive" results of the studies. Then a professor of animal science drove me by a Beechnut gum factory in upstate New York where dairy farmers used to buy truckloads of bubblegum to feed to their cows. The only reason the farmers stopped coming is that the factory closed down.

Researchers studying *human* nutrition have been just as slow to see the connection between animal diets

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and human diets. To virtually all dieticians, beef is beef, eggs are eggs, and milk is milk. Few pay any attention to what the animals were fed or how they were raised. Thus, when the USDA guidelines say “eat less red meat,” the edict applies to all red meat, whether it’s a fatty steak from a grainfed cow, or a lean steak from a grassfed cow with its invisible bounty of omega-3s, vitamin E, and CLA.

I have spent the past three years searching for studies that have explored the link between animal feed and human food. It’s been arduous work. One of the main problems is that there is scant research about the nutritional value of products from grassfed animals. For the past 50 years, virtually all the studies have focused on grainfed products. To fill in the void, I’ve searched through yellowing journals published before the advent of factory farming, extrapolated from small studies financed by individual farmers, and relied on studies based in Ireland, Australia, or New Zealand—parts of the world where animals are still kept home on the range.

Finding the amount of vitamin E in grassfed beef has been the biggest challenge. I began to search for the data when I learned that grass has 20 times more vitamin E than corn or soy. Given the magnitude of this difference, I reasoned that meat from grassfed animals *must* have an extra helping of vitamin E.

Diligently, I searched the scientific record. At long last, I located one American study that provided some data. The impetus for this rare study came from disgruntled Japanese buyers who were complaining that the meat from American feedlot cattle spoiled more quickly than the meat from Australian free-range cattle. To find out why, the Americans measured the vitamin E levels in the two types of meat. (They knew that antioxidants such as vitamin E helped

prolong shelf life.) Their tests revealed that the meat from the Australian grassfed cattle had three to four times more vitamin E, thanks to all that vitamin E-rich grass. What did the American researchers do with this finding? True to form, they began studying how much synthetic vitamin E to add to feedlot diets. I doubt that it even occurred to them to take a closer look at the Australian model.

A main reason for this lack of interest in the pasture-based model is that much of our animal research is funded by commercial interests—specifically the grain, chemical, pharmaceutical, farm equipment, and meat-packing companies. Together, these vertically integrated behemoths have a multi-billion dollar stake in perpetuating factory farming. The USDA, meanwhile, aids and abets by focusing its efforts on tweaking the feedlot system. The Meat and Animal Research Center (MARC) in Lincoln, Nebraska is more willing to spend \$100,000 researching how quickly feedlot manure seeps into the water table than to spend a similar amount exploring pasture-based farming.

My Fantasy

What will it take to change the priorities of the research community? An enlightened public. And what will it take to enlighten the public? A sustained media campaign. But since there is no money to fund such a campaign, the breakthrough will have to come from investigative journal-

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Why Grassfed is Best

(con’t from page 24)



(Photo courtesy of Courtney White.)



Why Grassfed is Best

(con't from page 25)

“When we switch from grainfed to grassfed meat, then, we are simply returning to our original diet, the diet that is most in harmony with our physiology. Every cell and system of our bodies function better when we eat products from animals raised on grass.”

ism. I have a fantasy about how that might happen. First, a journalist from a major TV show such as *60 Minutes* or *Dateline* or a prestigious newspaper such as *The New York Times* or *The Washington Post* will decide to explore the stunning differences between factory farms and pasture-based farms. Building on this ground-breaking work, an award-winning TV producer will create a one-hour documentary showing the vivid contrasts. The program will conclude—as it must—that raising animals on pasture is better for consumers, the animals, the environment, and small-scale farmers. Before long, dozens of TV shows, newspapers, and magazines will launch their own investigations.

All of a sudden, grassfarming will be the talk of the town. Serving organic meat won't win points in Los Angeles anymore unless it's grassfed as well. Meanwhile, Ted Turner will have stopped sending all of his bison calves to feedlots to be fattened like cattle, and by 2005, his “Turner Reserve Grassfed Bison” will be the thing to serve at celebrity gatherings. Propelled by this groundswell of interest, investors and institutions will finally devote more time, money, and energy to supporting pasture-based farming.

Will grassfarming really become the darling of the media? Only time will tell. But even if it doesn't, there is evidence that grassfarming is gathering momentum the old fashioned way—word of mouth. Friends are telling friends about the health benefits of pastured animal products, and they're turning the curious into converts by inviting them over to share in a feast. I've gotten calls from quite a few grassfarmers this year who say they're having trouble keeping up with demand. The good news about grassfarming seems to be spreading—one satisfied customer at a time!

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Welfare Soybean Farming

(con't from page 18)

for the land and its biodiversity—there have always been careless ranchers as well as careful ones—this last decade has witnessed a dramatic increase in the number of cattlemen and sheepherders experimenting with sustainable grazing practices. I, for one, am comfortable with knowing that my tax dollars are being used to foster such experimentation and revitalization of Western rural economies. I do not look at the term *subsidy*, in this sense, as a negative; for in the same way, I wish to

subsidize good schools and good arts in rural communities. As consumers, we need to abandon the myth that all ranchers are living off the government dole at the expense of sound environmental stewardship. Instead, we let us further *value*—a more positive word than *subsidize*—the sheepherders and ranchers who are already attempting to improve range conditions, while safekeeping the many ecological services and environmental amenities that their land stewardship provides.

Why Grassfed is Best

(con't from page 26)

Wanted: A Few Good Restorationists!

The Quivira Coalition is looking for a hardy crew of volunteers willing to work hard (and have fun!) on various restoration projects ongoing around the region.

We propose to create an email list of folks interested in riparian restoration work, forest thinning projects, upland rehabilitation, and other cool stuff. The goal is to try and spend one day a month restoring land to health collaboratively. So, we are looking for people willing to be part of an email list—as the date shapes up for possible work, we'll let everyone know through an email broadcast.

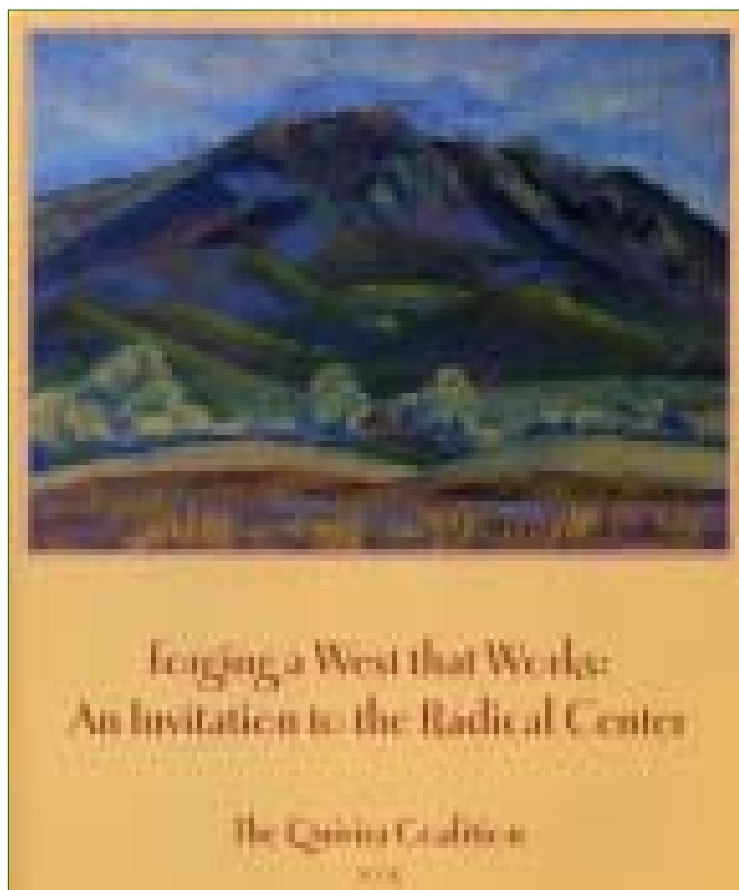
If you want to be "on the alert" for restoration work, please contact Tamara at: projects@quiviracoalition.org

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The Quivira Coalition Announces its New Book:



Forging a West that Works: An Invitation to the Radical Center

This book is a compilation of articles from the first five years of our newsletter and is available for \$15 (shipping included). It is available by calling 505-820-2544.

For information on **Upcoming Events**, see our website, www.quiviracoalition.org, We will also be sending out flyers soon on workshops and tours scheduled for this summer.



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