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AGRARIAN ELDERS
CONFERENCE SUMMARY

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Agrarian Elders Conference
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Executive Summary

The Agrarian Elders conference was organized by two of the most well-networked, vocal, and trailblazing organic farmers of the last three decades, **Michael Ableman**, representing the West coast, and **Eliot Coleman**, representing the East coast. They conceived the gathering when they realized that, for the first time since the industrialization of agriculture, there is a group of agrarian elders who have accumulated thirty or more years of practical experience with the art and craft of natural systems agriculture. The intention of the conference was to gather twenty-five of these elders to dialogue in an intimate forum, share stories as well as hard-earned techniques and insights, and to create a grounded vision for the future of food and agriculture.

The Agrarian Elders conference participants came from all over North America, representing a variety of scales and models of organic agriculture practiced excellently. These are the pioneers of the new food movement; their ideas and farms have seeded the organic, local, slow food, and culinary revolutions of the past few decades. Some of the individuals are well known; others have been working more quietly on the margins to create the models. All are real farm practitioners with hands and hearts rooted in the dirt.

The farmers discussed solutions for some of the most pressing issues facing organic agriculture today: climate change, government regulation, co-opting of the organic market, contamination by genetically engineered crops, and the rising population and urbanization of the planet. Guided by the north star of a "perpetual agriculture", they evaluated where the organic movement stands today and envisioned where it should go next. Of particular import and interest to this group was their next hurdle—retirement and succession of their farms to the next generation.

Because the Esalen Institute and organic agriculture were both birthed during the counter-cultural revolution of the 1960s, Esalen was a fitting venue for the Agrarian Elders to meet. With the intent of fostering a radically new, spiritually inclusive, and ecologically sustainable worldview, Esalen's Center for Theory and Research (CTR) has hosted leading experts across a broad range of disciplines to discuss how we can bring forth a bold vision of continued human evolution. Likewise, in the same period, Esalen's Farm and Garden program has cultivated a holistic model of "relational agriculture"—connecting people to the land, themselves, and each other. The Esalen Farm and Garden grows organic food to feed the campus, engages guests and public through a number of farm-based educational programs, and cultivates a habitat for deep human and earth connection.

Over the course of their week together, the Agrarian Elders participants shared an abundance of exquisite stories from their journeys as radical individuals discovering natural process agriculture and building the organic movement. While it would be impossible to fully encompass the depth and scope of information that the participants shared with one another during the five days of open-forum discussions, the following summary captures the main themes discussed and highlights some of the key insights.

The Story of Their Lives

In the year Esalen was founded—1962—Rachel Carson published her environmental wake up call, *Silent Spring*. Although mainstream agriculture was fully immersed in its paradigm of toxic chemicals at that time, many young people felt instinctually that there had to be a better way of growing food in harmony with nature and people. Some employed conventional methods early in agriculture or academia and became disillusioned over time. **Bob Cannard** mixed DDT and other toxic chemicals while working for his father's nursery business as a teenager. **Hiu Newcomb** believes her husband Tony died of lymphoma due to using atrazine and other chemicals on the farm in his early days of farming.

As youths inspired by the many world changing movements of the 1960s-1970s, the attendees felt instinctually called "back to the land" to pursue personal, social and environmental change at a hands-on level. **Jim Crawford** walked abruptly out of law school in Washington D.C. after realizing that he wanted to return to his childhood love of growing food. And so the Agrarian Elders joined emerging agrarian communes, revived defunct homesteads, and bought or rented what small plots of land they could afford—often with deficient soils or impenetrable virgin forests to contend with.

Since most attendees' parents or grandparents had left farming for "better lives" in the industrial economy, few actually grew up on farms or had much experience to guide them on their rural frontiers. And since pre-industrial methods and practices had been abandoned decades earlier, the farmers worked on their pioneering projects with almost no access to the mentorship, supplies, tools and resources that were necessary for their seedling vision. **Michael Ableman** said, "At that time, our only option was to call the farm advisor, who was basically an advertisement for chemical companies." A great degree of internal resourcefulness was required; fortunately, the farmers were "young, tough, unafraid of work, and naïve", as **Betsy Hitt** and her husband Alex described their years of living in a tent on their farm. **Jake Guest**'s rural commune "had no running water, power, or telephone, but [they] had each other and had a great time."

Some discovered inspiration from an earlier generation of back-to-the-land agrarians, such as Helen and Scott Nearing, authors of the 1954 homesteader bible *Living the Good Life*. **Eliot Coleman** poured through 19th-century agricultural texts to try and rediscover the lost insights of natural systems agriculture. Consequently, each approached his or her farm slightly differently—some more scientifically and technically, others more intuitively and spiritually. Without a playbook for developing organic agriculture, they experimented, implemented slowly, and refined with time. They gradually improved their soils, adapted seed varieties for their environments, collected and upgraded second-hand equipment, expanded infrastructure and land area, and developed innovative marketing strategies to suit the demands of their particular regional contexts. Kids were raised almost feral on the farms as their parents worked long hours with determination to succeed eventually.

At the beginning of their careers, "organic" was barely in the public lexicon, and any mainstream associations were with fringe hippie communes. Farmers were not very respected in general at the time, especially those going against the grain of conventional practice. These farmers worked tirelessly to define and frame the importance of their work,

and to engage their communities for support. During the 1980s, the qualities of organic food --high nutrient density, beautiful flavor, non-toxicity, direct relationship with a farmer, and low environmental impact-- started winning over an exponentially growing group of conscious consumers. Chefs started featuring organic menus, and supermarkets started installing high-end organic sections. It wasn't long before large, monocultural conventional growers were trying to capitalize on this emerging niche, stressing organic principles within bottom line thinking, and putting these pioneering small farm businesses in economic jeopardy.

Many of these Agrarian Elders' peers had to give up along the way in the face of this crisis. Although no one made much money in the early years, the participants of the Agrarian Elders conference are some of the fortunate ones who developed strategies to survive and thrive. Some even discovered sweet spots with ideal economies of scale, and built lucrative businesses over time. As the increased profile of organic agriculture brought on more governmental oversight and certification challenges, many of the attendees became socially and politically active in their communities, became excellent educators and mentors, joined boards and organizations that shape organic practices and policies, and advocated issues in courts or at the ballot box.

Now this Agrarian Elders group has finally matured into the "seeding stage of its life cycle", as biodynamic farmer **Jean-Paul Courtens** put it. Against all odds, they have modeled lives of purpose, courage, meaning, affinity with nature, and world-changing innovation. There is still plenty of work and discovery required for humans to create a truly resilient, perpetual agriculture. The next generation has responded with unprecedented enthusiasm for tending these seeds.

Scale and Quality: How Large Can An Organic Farm Be?

Despite the recession economy of the last few years, the growth of the organic industry since the 1980s has hardly slowed down. Sales of organic food in the United States reached $31.5 billion in 2011, compared with $1 billion in 1990, according to the Organic Trade Association. The annual growth rate of the organic food & beverage sector is expected to increase to over 15% between now and 2019.

While many conference attendees agreed that small-scale organic growers like themselves have historically generated a collaborative, self-regulating, and transparent atmosphere with each other and customers, agribusiness entities engendered a more predatory and competitive landscape when they entered the organic market. Farms with several thousand acres began flying organic products to supermarkets across the country, selling at wholesale prices that small farmers just couldn't compete with.

Drawing from the title of a book by Robert Reich, **Jake Guest** said that the more the organic movement grows, the more it "bumps up against the underbelly of the monster of unregulated, corporate 'super-capitalism', with its claws embedded in government." Guest

insisted, "If we are not ready to guide and protect American organic agriculture, it will be gobbled up and spit back out in unrecognizable form by those malevolent forces."

While agribusiness is generally considered a dirty word among small organic farmers, agricultural advisor **Amigo Bob Cantisano** has seen heartening evidence of larger players like Cal-Organics growing quality food *and* taking care of the land. While they may have entered organic for the market opportunity, a number of them embraced the sustainable practices more authentically after seeing their farms produce higher yields with fewer costly inputs.

Additionally, some of the attendees have witnessed conventional growers increasingly adopt organic techniques as more effective practices, such as planting native hedgerows for windbreaks and for encouraging wildlife habitat, or integrating cover crops that augment soil fertility. While most Agrarian Elders agreed that farming thousands of acres organically is not a sustainable, long-term solution, they wholeheartedly support the prospect of corporate agriculture getting off the chemical treadmill.

How Small Farmers Survive and Thrive in a Co-opted Market

As agribusiness entities overtook the wholesale organic market, many small farmers began pursuing alternative and locally based strategies for economic viability. "We started marketing directly to the customers who would appreciate the value of our products," said **Warren Weber,** who farms in both Marin County and the Coachella Valley. Selling their products through direct distribution channels such as restaurants, farmers' markets, mail-order businesses and community-supported agriculture (CSA) models, the farmers found workarounds to the apparent co-opting of the mainstream market.

While CSA structures have many variations, they generally focus on the production of high quality foods for a local community, and a shared risk membership and marketing structure. CSA farming engages consumers to become "co-producers" of the whole farm system. The core design involves developing a cohesive consumer group that funds the farm's seasonal budget in return for a regular share of food. Most of the conference attendees participate in CSAs in one form or another. Some found success by engaging with other types of cooperative actions and organizations as well.

Several attendees have benefited from the mass marketing of corporate agriculture, however. For example, **Jack Lazor**, of Butterworks Farm in Westfield, Vermont, explained how larger players in the organic dairy industry like Stonyfield Farm used their marketing prowess to develop the market and expand the consumer base, so that the smaller dairy farmers "got to ride in on their marketing coattails".

Jean-Paul Courtens described how excessive equipment costs and production inputs for agriculture necessitate an economy of scale and effort. For example, since the majority of agricultural tooling has been developed for large-scale, high-energy farm models, he explained, "It just doesn't make economic sense to buy a combine harvester for ten acres of

wheat." Courtens's 1,400+-member CSA model at his Roxbury Farm in Kinderhook, NY has achieved economic balance, but if he and his partner Jody Bolluyt decided to upgrade some of their outdated equipment, the CSA would immediately need to jump to 2,000 members to balance out the cost of production.

Some examples of attendees' successful marketing strategies and approaches:

- **Betsy Hitt** and her husband Alex have made their entire living for 33 years raising and direct marketing high value crops on 3-5 acres of their 26-acre Peregrine Farm in Graham, North Carolina—including berries, cut flowers, and 100 turkeys every year for the holidays. 75% of their income comes from two day-a-week farmers markets, and the rest comes from direct sales to a natural foods grocery and a few restaurants. They've also marketed some crops with a "pick your own" roadside stand.

- **Stephen and Gloria Decater** operate a 200-member "participatory CSA" on their Live Power Farm in Mendocino County, California, whereby members contribute time and labor in addition to financial support, rolling up sleeves on coordinated work days or self-organizing the distribution process.

- Adding value to the dairy produced from their 375-acre Butterworks Farm has been key to **Jack and Anne Lazor's** success. They take pride in crafting artisinal, cultured products such as yogurt, butter, cheese, kefir, and buttermilk.

- Instead of doling out weekly veggie boxes to their 400 CSA members, **Jake and Liz Guest's** Killdeer Farm in Norwich, Vt. operates a unique "debit card" system. Members make one payment at the beginning of the season, and then can shop flexibly afterward at the Killdeer farm stand. Purchases are subtracted from the balance of members' cards with a built-in discount. Jake Guest has found that many of their customers purchase more liberally and extravagantly now, buying artisanal cheeses and other value-added products on top of Killdeer's own produce. They tell him, "It feels like we're getting free food."

- After sustaining a shoulder injury that slowed down his level of field production, **Norbert Kungl** conceived and opened a "farm to fork eatery" (produce shop and café) to support his Selwood Green Farm in Nova Scotia, Canada. Informed by his love of cooking and coffee, Norbert's Good Food Café has allows Kungl to engage his customers more directly, while taking on new roles as barista and chef.

- **Jim Gerritsen** responded to the market-isolated context of his Wood Prairie Farm in remote northern Maine by developing a mail order business selling certified organic potato seed to customers across the country.

- In the 1970s, **Don Bustos** ditched his financially challenged 100-acre row crop farm and converted to a successful 3.5-acre year-round model on his Santa Cruz Farm in Espanola, NM. He made it work by raising high value organic produce and selling it locally through direct channels (including schools and La Montanita cooperative), adding passive solar greenhouses to allow year-round production, and generating additional revenue and labor through its Agri-cultura farm internship program.

- **Jim Crawford** and his wife Moie have built a multi-faceted, successful direct-marketing system since their early days selling veggies out of the back of a pick-up truck. The Crawfords founded and the 25-year-old Tuscarora Organic Growers cooperative, composed of forty-seven farms that share a distribution warehouse and marketing channels with their 95-acre New Morning Farm in south-central Pennsylvania. They conceived the idea after finding that even organic wholesale distributors offered no transparency and no commitment to their small and unstable operation. By recruiting more growers and getting each to diversify their farming operations to reduce overlap, the coop achieves a successful economy of scale with a 12-month production cycle and attracts more customers than they could reach as independent entities.

Finding the Sweet Spot

Dru Rivers's Full Belly Farm offered one of the most robust examples of a farming operation finding its "sweet spot" in the market—balancing excellent diversified production with enriching education and outreach, while achieving financial success. The farm's shared partnership model has allowed Rivers and her three partners (Andrew Brait, Judith Redmond and Paul Muller) to diversify and focus on the roles that they love and excel at. Full Belly's system includes: growing and marketing over 80 different crops; providing year-round employment for farm labor; selling produce within a 120-mile radius of the farm; and planting habitat areas for beneficial insects and wildlife. One of the farm's goals is to integrate farm production with longer-term environmental stewardship. Within 350 acres, Full Belly Farm comprises about 150 acres of diversified row crops, 50 acres of fruit and nut orchards, 30 acres of hay ground, 5-6 acres of cut flowers, plus additional acreage for heirloom varieties of grains for humans and animals, and summer and winter cover crops. They integrate livestock into the farm with 80 sheep and 1,000 laying hens for market eggs.

Full Belly pursues a diverse range of marketing channels including three farmers markets (~25% of income), a 1,200-member CSA (~25% of income), and wholesale distribution (~50% of income). Their local farm community came together to formulate a regional label and collaborative CSA called "Capay Valley Grown", which builds awareness of place, adds value for local growers, and facilitates cooperative actions that benefit the members (for example, creation of shared agricultural processing facilities, and a shared retail outlet to sell their products).

Last year, Rivers and her partners grossed about $4.5 million from the farm. Full Belly actually can't keep up with demand, which has driven steady expansion. They just started a huge wholesale account, which drove another economy of scale—delivering half a million in annual sales in two years. If they continue to expand, Rivers fears losing their sweet quality of life, moderate scale, and local approach.

The Challenge of Certifying "Organic"

As consumer demand for certified organic products accelerated during the 1980s, so did expectations that organic products be verifiable, along with an influx of unwarranted organic claims. The Organic Food Production Act of 1990 directed the US Department of Agriculture (USDA) to develop and enforce national standards for organic products through the formation of a National Organic Program (NOP).

Many Agrarian Elders lamented that the resulting standards were so reductionistic or diluted that many organically-certified products sold in big box stores demonstrate mediocre quality, low nutrient density, have been grown by agribusiness entities with conventional techniques (albeit without certain pesticides), and shipped around the world to market. Furthermore, the process of USDA certification has become both cost and time-prohibitive for many small farms.

Many in this conference expressed that local is just as important as organic: carbon footprints and remote origins of shipped food are antithetical to the social and environmental principles of organic agriculture. **Dru Rivers** proposed that organic certification should require a transportation limit of one hundred miles. Some progressive retailers are now displaying "food mile" information on produce shelves, which detail the mileage that each product traveled to market, and are finding that such info affects consumer choices.

Eliot Coleman believes the organic movement's greatest mistake was to define and certify "organic", rather than continue to refine individual practices in private labeling systems driven by evolving customer intelligence and pressure. Research by Context Marketing in 2009 validated that shoppers are becoming increasingly savvy at evaluating particular food quality or safety claims on labels, while familiar quality claims like "organic" or "free-range" hold less sway in their decision-making. **Bob Cannard** abandoned the term "organic" altogether, believing it has become "bleached of its meaning". His Green String Farm and Institute developed its own "Green String" standard, which exceeds the requirements put forth by organic certifying agencies with an emphasis on respect for humanity and the environment.

Several attendees agreed with Coleman that the organic community managed regulations and standards more effectively before national organic certification came into existence. "There were a lot more intimate, peer-to-peer councils and gatherings like this to share best practices and define the bar for organic farming," said **Ableman. Amigo Bob Cantisano,** a farmer and agricultural advisor based out of his Heaven & Earth Farm in California's Sierra foothills, was involved with the initial formation of the California Certified Organic Farmers (CCOF) in 1973, which became the first organic certifying entity in the United States. He described this early certification model essentially as a peer-review process "with a handshake".

Reeling from the co-option of the wholesale markets in the late 1980s and wanting to stay ahead of the NOP certification, **Warren Weber** and his local community of organic farmers approached their county agricultural commissioner in 1989 for support to develop a county-

based, local organic certification program called Marin Organic. Over the next eight years, they developed a unique, place-based set of criteria that went above and beyond the national standards for organic by including economic prosperity, environmental stewardship and social equity as pillars of sustainability. Marin Organic now goes beyond enforcement of NOP regulation by providing marketing and P.R. services to its farms, and connecting people to these farms through education programs.

Despite the many faults conveyed about the present organic certification system, several attendees held that national organic certification had given them more credibility with customers and distributors. Certification has also helped legitimize and encourage more organic research in universities. But **Cantisano** concluded, "It all still comes down to the integrity of the individual farm. It is entirely possible for a farm to cheat the monolith of certification if they want to." Or as **Michael Ableman** put it, "The best form of certification is relationship".

Regulation: The Burden of Getting Big

As organic agriculture has become a verifiable "industry", many farmers described being increasingly confronted with debilitating regulation and legislation from governmental agencies like the USDA, NOP, FDA, and US Department of Labor (USDOL), claiming these are not actually representing the interests of the 99%. **Jim Gerritsen** related the failed attempt of the organic community in the 1980s to sidestep looming federal regulation via the formation of a self-certifying organic agricultural guild similar to what the medical and law professions maintain. Since that time, some attendees have suffered exorbitant fines and protracted paper-trail audits for not fully understanding or meeting the complex demands of these agencies (for example, getting fined by the USDOL for clerical mistakes on I-9 forms).

The farmers particularly decried the U.S. Food Safety Modernization Act (FSMA) of 2010, which gave more authority to the Food and Drug Administration (FDA) to regulate how food is grown, harvested, and processed in an alleged effort to reduce food-borne illness outbreaks. FSMA places significant bureaucratic and fiscal responsibilities on farmers to prevent food contamination. **Jim Gerritsen** said, "We need to guard the viability of family farms when it comes to regulation such as FSMA. It isn't going to work if we become so over-burdened by paperwork that we don't have time to do a good job farming."

Attendees expressed the need to get consumers on board in opposition to oppressive regulatory policies like FSMA, but farmers feel vastly limited in political tools, methods and budgets. They also expressed the need for more exposure and education about best practices and regulations, especially for the next generation of farmers. Regardless of the challenges of certification and over-regulation, many farmers emphasized a commitment to democratic process. Despite having "suffered the indignity of being audited and hassled" by multiple government agencies such as the USDOL and the USDA, **Jake Guest** still considers himself "a social-democrat, believing in robust, benevolent, responsive and inclusive federal and state government." **Warren Weber** said, "Government is only a problem if we let it be. We need government on our side, and I believe the government wants to help."

The Limits of Corporate Funded Scientific Agriculture

In evaluating weaknesses of organic agriculture, **Amigo Bob Cantisano** raised the need for more meaningful and transparent scientific research to support successful organic growing. Despite some encouraging exceptions, the conventional agricultural perspective dominates today's academic system. He expressed a particularly strong need for increased understanding of compost and organic matter—the cornerstones of organic farming still relatively mysterious to human comprehension. Founder of Wild Garden Seed in Oregon's Willamette Valley, plant breeder **Frank Morton** lamented the misconception that organic farmers don't or can't embrace soil chemistry because they don't use chemicals: "We have sophisticated understandings of chemistry and biology; we just interact with the information differently."

Tom Willey (owner of T&D Willey Farms in Madera, CA) described how proprietary companies with a stake in conventional agribusiness are funding most of North America's agricultural research and development. Willey contended that the scientific community needs more mechanisms for transparency and open source information sharing to improve the science of agriculture. "We don't have time to keep information close to our chests. We have to share," Willey said.

Beyond the lack of available research, **Bob Cannard** expressed a more fundamental concern with the quality and philosophy of agricultural science as a whole, drawing a parallel to western medicine's diagnosis and treatment of symptoms rather than promotion of optimal, holistic health. **Cantisano** elaborated that the specialization and short-term orientation of agricultural science doesn't allow for a holistic perspective.

The attendees unanimously agreed that organic farmers (and human beings in general, for that matter) are just scratching the surface in their understanding of nature's complex systems. "We know almost nothing," said **Ableman**. For example, **Willey** cited Michael Pollan's essay in *The New Yorker Magazine,* "The Intelligent Plant", which presents potentially paradigm-shifting revelations about plant adaptation and learning, within a hotly disputed field some scientists are calling "plant neurobiology".

Honoring Observation and Intimate Participation with Nature

Some farmers argued that agriculture was developed over 10,000 years without the reductionist approach of academic research, and cautioned against organic agriculture worshipping the cult of "scientism" (as Huston Smith referred to our society's inflated faith in science to describe reality). Our ancestors cultivated skills of intuition, full-systems-thinking, and methodical seed selection—noticing and replicating what actions created positive results. "Much of agriculture's history has been about trial and error—agriculture rewards the observer of happy accidents," said **Tom Willey**. "Observation is still our greatest asset as farmers", added biodynamic farmer **Jean-Paul Courtens**. **Michael Ableman** describes what he teaches his apprentices as "observational agriculture".

Don Bustos believes that western science and agriculture are just catching up to and reinventing ancient wisdom. Bustos stewards the same land his family farmed 400 years ago. He honors that spiritual lineage by incorporating ceremonies and rituals that would have been core to his ancestors' agricultural practice. Before planting out the season, Bustos blesses his fields and orchestrates performances of songs and dances.

Frank Morton's Wild Garden Seed deliberately grows their organic seeds in small quantities; the biggest acreage for one seed crop is half an acre. This means that all the seed selection and processing is done by hand, requiring intimate observation and participation by the farmer.

Stephen Decater shared a beautiful story of encountering the eccentric, vanguard organic horticulturalist Alan Chadwick as a student at UC Santa Cruz in the late 1960s. For Decater, Chadwick's Garden project at UCSC was a "powerful rebirthing place" for many farmers of his generation, and Decater was quickly recruited into the fold. There Chadwick "opened a new world and culture of man working with skill, awareness, reverence and obedience to the laws of nature," Decater said. When asked why people should participate in agriculture, Chadwick answered, "so that Man can find his affinity with Nature."

Is There a Perpetual Agriculture?

Given the overwhelming challenges of our time—climate change, environmental and soil degradation, fossil fuel scarcity, etc.—the conference participants wondered what a "perpetual agriculture" might look like. **Jim Gerritsen** offered the question posed by agricultural writer Wendell Berry: "What does this earth require of us if we want to continue to live on it?" **Tom Willey** insisted that, despite its progress away from conventional practices, organic agriculture still has a long way to go in terms of its reliance on petroleum, soil tillage and other environmentally unsustainable practices. "Our tillage is abhorrent to the soil… And we are still petroleum junkies!"

Willey raised the "10,000 year old problem of agriculture" as described by agricultural writer and geneticist Wes Jackson: while many empires have initially flourished by adopting agriculture, they have subsequently declined as soon as they irreparably degrade their soils and environments. "Agriculture is essentially mankind's greatest experiment, and it's too soon to say if it will succeed," Willey said. He has become interested in how pre-colonial California Indians, by contrast, lived in balance and abundance with natural systems for thirteen thousand years without agriculture, just by tending the wild.

Jean-Paul Courtens is passionate about identifying alternatives to agriculture's dependency on massive petroleum-fueled equipment, while recognizing the conundrum that scaling down will require many more human hands to get the work done. Courtens and his partner Jody Bolluyt import more agile equipment from Europe, and have begun to introduce horse-driven cultivation alongside large equipment on their 375-acre farm.
Eliot Coleman and his wife Barbara Damrosch have championed bottom-up innovation in organic farm equipment, inventing and piloting low-energy, human-scale, inexpensive, and flexible tools on their 1.5 acre Four Season Farm. Located on the coast of Harborside,

Maine, where winters are commonly bitterly cold, Coleman has become famous for his experiments in lengthening the growing season to year-round production via mobile, passive solar greenhouses. He sows seeds outdoors in the late summer and fall, and then slides the greenhouses over the crops when winter comes.

Many of the farmers get some or all of their power from wind and solar sources. **Stephen and Gloria Decater**'s Live Power Farm uses an 18kw photovoltaic system to meet its need for electrical power and water pumping. Since 1980, they have used draft horses exclusively for soil tillage, garden cultivation and general fieldwork.

Amigo Bob Cantisano raised another challenge to a perpetual agriculture: the state of plant genetics. He claims that plant genes have been "trashed" by fifty years of conventional farming, which bred nutrient density and innate plant resistance out of crops in favor of other considerations like yield and shelf life. But **Frank Morton** believes that an opposite agenda focused on organic breeding for nutrient density demonstrates measurable differences in as few as three plant generations.

Cantisano discovered one potential solution for supporting perpetual agriculture in California when he found hundreds of orchard trees in the Sierra Foothills' Gold Country that have thrived and produced fruits in a feral capacity for over a hundred years—despite droughts, frosts and all kinds of hostile conditions. Felix Gillet, a pioneer nurseryman and "father of perennial agriculture in California", had planted these trees in the late 19th century. Cantisano founded the Felix Gillet Institute to study and propagate fruit and nut trees from this drought and disease-tolerant heirloom stock. The Institute just launched its first catalog, and is offering educational programs to pass on propagation and growing methods.

The Organic Farm as Organism and Ecosystem

Given the diversity of successful models and contexts represented in the conference, it seems impossible to determine a one-size-fits-all "sweet spot" of success (measured economically, socially, environmentally and culturally). Some the attendees speculated that the similarity between thriving organic farms, whether at ten or ten thousand acres, seems to be the cultivation of an organismic or ecosystem-like quality. The more a farm mimics and includes the complexity of natural whole systems, the more resilience and balance it achieves.

Such farms regard crops as only one dimension of a larger system that includes "ecosystem services" such as native hedgerows and wildland preservation. They limit outside inputs, generating fertility and pest resistance through on-farm biological processes, such as compost, cover crops, and beneficial insect habitats. Ideally they employ long-term field rotations of diversified food production, annual cover crops, and perennial grasses for animal grazing—with at least 50% of fields in cover crops at any one time.

Stephen and Gloria Decater's Live Power Farm embodies a rigorous approach to whole systems farming with its 50-acre diversified biodynamic model. Inspired by the founder of

biodynamic agriculture, Rudolph Steiner, the Decaters shared their belief that every farm should aspire to have a "self-contained individuality," analogous to a healthy human body with all its organs mutually supporting each other. Furthermore, Steiner regarded any outside inputs as treatments for a sick farm. Live Power generates compost entirely from its own livestock and plant waste, and imports almost no inputs from outside their farm.

Following the motto "50% for humans, 50% for nature", **Bob Cannard** maintains an important balance between crops grown for human consumption and crops grown for soil improvement. His agricultural ethos was shaped by formative and ethereal experiences as a young man inhabiting the forest. Cannard took notice of wild processes, such as soil mineralization, and dedicated himself to reproducing such "structures of nature" within his agricultural systems. His growing approach involves especially low intervention and low inputs, and yet yields premium quality crops—evidenced by the fact that his Green String Farm is the primary source for Alice Water's seminal, farm-to-table Chez Panisse restaurant in Berkeley, CA.

Susan Tyler's Whaelghinbran Farm in New Brunswick, Canada offers a hopeful model of agriculture working with and supporting wild systems. Only eighty acres of her 650 total are cultivated farm fields and pasture; the rest consists of sustainably managed and harvested woodland with towering white pine and red spruce trees, some of which are more than 150 years old. Tyler described her approach: "The trick is to see what the forest is 'wanting to do'. We learned you could take trees, and let in light, and encourage the forest to return to what it had been before Europeans mined it for masts, and lumber companies for paper. Over the years, we have harvested from the forest as part of our farming way of life, while increasing its values and native stocking, and accelerating its return to its original Acadian composition."

Jean-Paul Courtens suggested that it is a lot easier to design one's farm as whole ecosystem on a larger scale. He mentioned that the originator of biodynamic farming, Rudolf Steiner, always envisioned ten thousand or more acres in his projections of ideal systems. Even though **Nash and Patty Huber**'s farm, Nash's Organic Produce in Washington State, was one of the larger farms represented at Agrarian Elders at 500-plus acres, the Hubers emphasize their mission of "right livelihood": fostering a spirit of community and cooperation with employees and customers, building healthy soil, and stewarding the land. The farm is diversely composed of about 75 acres of vegetables, berries and orchard; 150 acres of grain; 20 acres of organic seed; 50 acres devoted to pigs, poultry, and compost; and the rest is fallow or in hay production. They rely on cover crops and compost to build soil fertility, and their livestock are free-range and pastured, adding to the nutrient cycle of the soils. Having been raised on a small, diversified grain and livestock farm in Illinois, Nash Huber said, "Much of what we now call 'organic' was just sound farm management when I was learning how to farm."

How Monsanto Bought 10,000 Years of Seed-Saving Power

As organic farmers strive to achieve natural balance in their organic systems, they are increasingly threatened by a volatile intrusion of genetically modified organisms (GMOs), which have been genetically altered in labs to express particular traits in their DNA, such as pesticide production or herbicide tolerance. Roundup Ready crops, created through GM technology by agrichemical/biotech giant Monsanto Corporation, became popular in the 1990s based on their ability to resist the toxic active ingredient in Roundup pesticide, glyphosate—theoretically allowing conventional farmers to drench entire fields with glyphosate, only killing the weeds. However, virulent "super weeds" have since evolved to resist glyphosate as well, causing some farmers to resort to even more toxic pesticides and genetic engineered applications (such as 2,4-D, the chemical that comprised half of the Agent Orange herbicide used during the Vietnam War). And while such crops may survive, they are essentially sickened—so those farmers must spray micronutrients on these crops to counter their herbicide-induced nutrient deficiencies.

Genetically engineered crop production has grown at an astonishing rate in the last two decades, at an annual rate of about 10% globally for the last several years. The U.S. has the most GE crops planted, with about 90% of total land area of corn, cotton and soybean production now genetically engineered. As the land area has grown, so has cross-contamination of seeds on organic farms by GMO pollen, since pollen can be highly mobile and sometimes travel up to fifteen miles from its origin. Since rogue GE crops are undetectable to the farmer's naked eye, the onus is on the farmer to carry out genetic testing. Since the rollout of genetically engineered Roundup Ready Corn and Canola, the organic corn and canola industries have virtually collapsed because of widespread contamination.

To add insult to injury, if an organic farm gets contaminated with Monsanto GMO seed (through no fault of its own), the corporation can sue the farmer for patent infringement. According to Monsanto, the impossible buffer from GMO pollen has to be on the organic farmer's side of the fence. As President of the advocacy group Organic Seed Growers and Trade Association (OSGATA), **Jim Gerritsen** spearheaded three years of litigation seeking preemptive protection for GMO-contaminated farmers from Monsanto, and challenging genetically engineered seed patents on Roundup Ready crops. The *OSGATA et al. v. Monsanto* case achieved an imperfect victory in June 2013 when a U.S. Court of Appeals ordered Monsanto not to sue any American farmer that had up to "trace amounts" of GM content (1% or less).

Unfortunately, in January 2014 Gerritsen and his group were denied the right to argue their case more thoroughly in the U.S. Supreme Court. "The Supreme Court failed to grasp the extreme predicament family farmers find themselves in," said **Gerritsen**. "The safeguards that [the Court of Appeals] ordered are insufficient to protect our farms and our families…The Supreme Court has now in 2014 denied farmers the basic right of protecting themselves from the notorious patent bully Monsanto."

When Monsanto Roundup Ready sugar beet seed production came to **Frank Morton**'s Valley in Oregon, a famed seed producing region invaluable to vegetable production and the almost exclusive grower of sugar beets in the country, **Morton** brought a lawsuit against the

USDA for de-regulating that crop without first performing an Environmental Impact Statement (EIS) to determine the effect on seed growers in the area. After they won and the EIS was performed, the USDA declared the resulting proof of contamination inconsequential. "We wasted three years in courts, and I can't see what to do next. Co-existence seems to mean we eat their dust," Morton said.

On top of the major Roundup Ready crops already sold in the marketplace (corn, canola, cotton, sugar beets, alfafa and soybeans), **Gerittsen** shared that biotech has filed applications for over sixty genetically engineered crops now in the pipeline awaiting de-regulation from the USDA, covering most of the vegetable varieties that organic farmers grow. The conference attendees expressed frustration with the myth that GMOs deserve to exist in order to "feed the world". "The reality is that the rest of the world doesn't want them," shared **Morton**. Morton has seen other seed suppliers suffering major losses of European and Asian customers, since those regions won't accept seeds that have potentially been contaminated.

Essentially, the agrochemical industry has bought the seed industry and is in the midst of an unwieldy global biological experiment. **Jim Gerritsen** believes this was motivated by a nefarious agenda of global agribusiness "to finally and fully remove the ownership of plant genetics from farmers who, for 10,000 years until recent decades, have always selected and owned their own seeds. The top six multi-national chemical companies have now reinvented themselves as biotechnology companies, and consolidated that control via ownership of seed."

Norbert Kungl emphasized that we need to educate and mobilize consumers to demand protection from GMOs through labeling laws. Although labeling of GMO products in the marketplace is required in sixty-four other countries in Europe and beyond, the FDA does not require labeling of GMO products in the U.S. marketplace, nor does it recognize a distinction between GMO and non-GMO foods. Most farmers have no expectations that the U.S. Congress, in its currently dysfunctional state, will touch the issue.

Statewide initiatives for mandating GMO labeling may be the strongest leverage point for GMO legislation, despite recent narrow losses in California and Washington in 2012 and 2013 when pro-GMO campaigns spent $70 million to convince voters against labeling. Recently, GMO labeling laws have been passed legislatively in Maine and Connecticut. **Gerritsen** said, "Consumers need the tools to differentiate between GMO and non-GMO products. The free market requires that kind of transparency. Label the GMO products and let's see if they are as popular with consumers as the biotech industry claims them to be. More likely, Americans will act like consumers in Europe, and *not* put their food dollars into GMOs."

The Crisis of Participation

A seminal text for the Agrarian Elders' generation, *Farmers of Forty Centuries: Or Permanent Agriculture in China, Korea and Japan* outlined the elegance of China's 4,000-year-old intensive agriculture system as its author saw it in 1911. As recent as the early twentieth century, a

majority of China's population participated in agriculture. But China's population is rapidly moving off the land to join the middle class in the urban industrial economy, just as Westerners did in the industrial revolution.

75% of the world's population will be urban by 2050 (compared to about 50% currently), with almost all of that growth occurring in developing countries—leaving few behind to farm rural lands. Given these trends of population growth and urbanization, the attendees questioned what alternatives to rural farming might look like, and how to get more people engaged with growing food. "More than an environmental crisis or a food crisis, we face a crisis in participation. We need more than a sliver of the population (less than three percent) farming in order to feed our world of over seven billion people. Encouraging more people to participate in the process is essential," said **Michael Ableman**. Having traveled and studied agriculture internationally, Ableman related how much of this movement is taking place in developing countries, driven by food sovereignty issues.

Another sobering reality is that most organic farmers are marketing to a small, affluent portion of the population in order to survive economically. **Don Bustos** encouraged organic farmers to adopt more of a social justice lens in their thinking about how to feed the future. "Immigrants and people of color will compose the majority of the next generation of farmers in the United States. We need to focus on training them, as well as engaging and serving under-served populations," Bustos said.

Urban and rooftop farms present some hopeful solutions to the trends of urbanization. **Ableman** is the founder and co-director of SOLEfood in Vancouver, British Columbia, one of North America's largest urban agriculture enterprises. SOLEfood has two major goals: to provide employment for people dealing with poverty and addiction, and to provide a credible model of urban agriculture. Their system addresses two of the most common constraints in urban agriculture -high land value and contaminated soils- by growing food in moveable, raised containers that isolate the growing medium, and fit a lot more food. SOLEfood also maximizes space by growing thousands of plants in vertical PVC columns that have been punctured and filled with soil.

"Too Soon Old & Too Late Smart"—The Challenge of Retirement

With the average age of American farmers nearing 60, perhaps the most common theme raised at the Agrarian Elders conference was the financial, logistical and emotional difficulty farmers face in retirement, as well as the challenge of finding and educating the right young people to succeed them. While many of the farmers raised kids on the farm, most of their children are just not interested in taking over. **Michael Ableman** joked "if you want your kids to farm, don't raise them on one".

Jake Guest doesn't know how to leave his farm because all his equity is embedded in it, and he needs to get it out to support his retirement. **Norbert Kungl** echoed that sentiment, saying his farm produces enough income for only one family. "I can't find a cushion," he

said. "What options do I have other than selling to the highest bidder, which I do not want to do? These are questions that I have no answer for."

The farmers are heartened by mounting youth interest and engagement in organic agriculture—demonstrated by over-flowing attendance at alternative farming conferences and unprecedented numbers of apprentice applications. Yet a majority of these young folks did not grow up on working farms and don't necessarily possess the skills to jump right in. **Bob Cannard** was shocked to find out that some of his apprentices "didn't even know how to hammer a two-penny nail". Other farmers complained that there aren't good organic agriculture schools, so the burden falls on farmers to provide a comprehensive education to their employees.

Furthermore, many have noticed that the majority of young people seem to be more interested in creating micro farmsteads or homesteads, even though the attendees questioned the economic viability of those models within the increasingly exploitative market context. When **Tom Willey** and his wife Denesse recently revealed to their three kids that their 75-acre farm is actually quite profitable, with about $300,000 net income per year (which also put them through college), their children wouldn't bite—partially because of a perception of their parents' farm being too industrial. The land has exponentially more value than when they bought it, so selling is tempting for the Willeys.

Many of the farmers insisted that it comes down to an economic bottom line—the economic cards are stacked against small-scale organic farmers, and compensation and grueling work hours don't appeal to talented young people over the long run. It took **Jim Crawford** twenty-five years to make an adequate living at farming, and he has found employee retention to be a huge issue for this reason.

Succession Strategies that Succeed

Jack Lazor admitted that it has been tough to learn how to relinquish control in the process of transferring ownership of Butterworks Farm to his daughter Christine and her husband Colin. Yet Lazor and other attendees acknowledged the importance of designing succession plans that will empower and liberate the next generation of young farmers to continue to evolve natural process agriculture, and realize their highest potential—while ensuring the essential values and mission of the farms stay intact.

Dru Rivers and her partners as Full Belly Farm took an entire year to figure out their succession strategy. They hired a holistic resource management advisor to consult them on the process. One of the outcomes was they became a corporation so they could gift to their children. Rivers said, "I don't want to die with one thing to my name. I want to give it all away. We have to do that to regenerate." Three of her four grown children have come back to work on the farm. They were encouraged to create their own job descriptions as a way of building ownership: one does weddings & events, and one acts as an Education & Outreach Coordinator.

After **Hiu Newcomb** completed a yearlong sabbatical away from her Potomac Vegetable Farms in Virginia to learn about biodynamic and ecological agriculture, she returned to find daughter Hana holding her farmer position with grace and skill. Instead of taking her old job back, Newcomb chose new tasks she wanted to do on the farm: growing off-beat varieties of vegetables, managing the greenhouse, and overseeing small details of the business. Newcomb is incredibly pleased with the farm's unforeseen succession plan.

Not having children, **Betsy Hitt** and her husband Alex have always focused on identifying successors from their employee pool. When one employee of three years demonstrated interest and capability, they built her a house to encourage her to stay and explore taking over the farm.

Nash and Patty Huber have focused on making their farm a hub for young families. Their long-term retention strategy involves employing twenty-five year-round employees, even though seasonal might be more efficient in the short-term. Still, the Hubers have found that the scale and scope of their 500-acre farm would be cost-prohibitive for a young farmer to take on. They have considered breaking the acreage into smaller, more efficient plots and handing them off to several different young farmers.

Giving the Land a Voice

As part of their succession plans, many attendees have constructed working land trusts and conservation easements to ensure continuity of land stewardship values and approaches on the farm. **Michael Ableman** says these types of thoughtful arrangements "give the land a voice" into the future, though they vary in levels of flexibility or rigidity for what future farm stewards can do on the land.

In the mid 1980s, **Ableman's** project at the time --the Center for Urban Agriculture at Fairview Gardens in Goleta, CA-- was zoned for major condominium development. Ableman looked for legal mechanisms to preserve the farm as a working model, but up to that time land trusts had only addressed open space easements (simply conservation and protection of the land). Ableman worked with lawyers to establish Fairview Gardens as one of the first farms in the country with an active-use easement for its working, food production landscape. At almost the same time, **Stephen and Gloria Decater** created and placed a specialized shared equity agricultural easement on their farm, which "dedicates the land permanently to active biological farming use and ties its resale value to farming income level—keeping it affordable to future generations of farmers."

Once they reached their 70s several years ago, **Susan Tyler** and her husband Clark Phillips began looking for a way to retire "with [their] hands still in the soil." Their hopes were answered when Community Forests International (CFI), a volunteer organization that intends to preserve forest lands across the globe, raised the money to buy the farm at half its value. Since Tyler and Phillips had already constructed a working lands conservation easement with their local New Brunswick Community Land Trust (NBCLT), CFI will now continue the farm's model of ecological forestry and organic agriculture. Although Phillips

passed away in 2012, the arrangement allows Tyler to stay on the farm as long as she desires, acting as a mentor for future farmers.

Eliot Coleman questioned if it is right to "burden the future" with too many restrictions based on what one currently believes are good or bad agricultural practices. His philosophy is informed by the fact that Helen and Scott Nearing (authors of *Living the Good Life)* sold him sixty acres at the beginning of his career for $33/acre (the price they had paid for it originally in 1952) without any specific conditions. Coleman plans to start an endowment with any extra money he has to support his farm's infrastructure over time. If his kids don't want to farm, he plans to rent out the farm for $1/year to an organic farmer.

Community Education—A Natural Strength of Organic Farming

Despite the great challenges that agriculture faces –GMOs, climate change, crisis of participation, etc.—the farmers acknowledged that they are righteously armed with powerful capabilities for educating and engaging their communities, elevating public awareness, generating support for big issues, and empowering the next generation through skillful education. Like so many of their peers, the farmers in attendance at the Agrarian Elders conference are natural communicators and community stewards. They have found a variety of outlets for spreading the good word of organic agriculture: CSA newsletters, community radio shows, books, documentaries, farm tours, social media channels, and of course the increasingly popular farmers' market.

Tom Willey spends one full day each week penning his CSA newsletter, which provides his members with excellent information on social, environmental and political issues in the realm of agriculture. **Amigo Bob Cantisano** co-founded the EcoFarm Conference, which began in 1981 with 45 attendees, and nows draws more than 1,800 people of all ages, representing the full spectrum of the alternative food and farming industry. **Michael Ableman** and **Eliot Coleman** have dedicated many years to writing and contributing to seminal books that have empowered countless people to join the ranks as farmers and gardeners. **Hiu Newcomb** says she loves facilitating "dog and pony shows" (school visits and farm tours for the public), and has noticed exponential interest from both kids and their parents. **Dru Rivers's** Full Belly farm hosts summer camps for kids to experience the magic of living and working on a farm, and ends the season with the Hoes Down harvest festival attended by 5,000 people. **Warren Weber**'s Bolinas farm has an innovative gleaning program that invites students from all over Bay Area to experience the act of harvesting food.

Most of the farmers present are highly dedicated to mentoring through formal apprenticeship programs on their farms or institutes, which become more popular every year. Full Belly Farm receives about two hundred applications for five apprentice spots every season (with about 80% from women). The apprenticeships vary in structure, commitment, and hands-on or informational teaching approaches—but all intend to enable someone to begin a meaningful career in agriculture. In response to the amount of time and energy required to design and facilitate an apprenticeship program, **Jean-Paul Courtens** co-

founded the Collaborative Regional Alliance for Farmer Training (CRAFT), which unifies farms to share responsibilities for educating apprentices.

Conclusion and Next Steps

Eco-philosopher and activist Joanna Macy describes two competing visions we can choose between when imagining the future trajectory of civilization on this planet: First, the Great Unraveling, which forsees an inevitable social and environmental catastrophe if we continue with business as usual in our industrial growth economy. Second, the Great Turning, which instead envisions our creative, constructive transition toward locally-based and life-sustaining societies committed to intimate reciprocity with nature.

Although Agrarian Elders attendees shared fear, doubt and confusion about the future of food and agriculture, they also expressed a great amount of hope and excitement based on the astounding growth of their movement and the energy of the next generation. Their discussions conveyed defining characteristics of the organic agriculture movement which certainly align with Macy's vision of the Great Turning: social, cultural, economic and ecological values; local community engagement; transparency, collaboration and networks; bottom-up innovation; honoring of ancestral wisdom and observation/intuition; investment in the complexity and intelligence of natural systems; and long-term, whole-systems orientation.

These characteristics also reveal organic agriculture's compatibility with leading-edge science, medicine, business, religion, and other fields—suggesting that natural systems agriculture is a keystone of a larger paradigmatic shift on the planet. As Macy writes, "We can't tell which will happen first, the final unraveling of life on Earth, or the moment when the elements of a sustainable world cohere and catch hold. But even if the Great Turning fails to carry this planetary experiment onward through linear time, it is still worth it. It is homecoming to our true nature."

Michael Ableman articulated the connection between agriculture and Esalen's mission of supporting human potential: "There is nothing more intimate, more essential, more tied to our humanness than how we secure our food. To engage in the process of growing food is to engage in life at its most elemental. To nurture soil, plant seeds, harvest and offer food to others is one of the most powerful expressions of love and healing. This is not only about Esalen as a place to support farmers, it is about the power of farming to support all people to be more fully human."

Over the last four decades, the farmers present in the Agrarian Elders conference have amassed a fertile body of work and wisdom—indeed, over eight hundred years of collective experience. Many attendees felt a renewed and deepened commitment to passing on their knowledge and skills to the next generation. Some suggested that future Agrarian Elders gatherings incorporate some of the best and brightest young farmers to "help bridge the gap between youthful energy and wisdom", as **Tom Willey** said.

The farmers also felt a sense of real urgency to engage the public on the complex challenges of GMOs, climate change, corporate agriculture and the importance of supporting local economies. But as **Amigo Bob Cantisano** said, "We can't fully realize these visions and goals given our limited capacity as farm-practitioners looking to retire. We need to connect with the allies and strategic partners who will keep pushing on these issues."

The Agrarian Elders conference offered an intimate opportunity to cultivate human relationships. This was a deep, relational gathering with more heart and soul than anyone anticipated, which some attendees even described as a rite of passage or "peak experience". **Jake Guest** said, "I came to the conference with the expectation of agricultural wisdom, and left amazed by the depth of human wisdom." While expressing deep gratitude for participating, **Hiu Newcomb** hoped that any future Agrarian Elders gatherings would open up the opportunity for other peers to experience, with an eye toward diversity and international representation.

"There is power in our words and our stories. It's time to amplify and broadcast them," concluded **Betsy Hitt**. Indeed, **Michael Ableman** intends to create a book, and the conference was captured by documentary filmmaker Deborah Koons Garcia (creator of *Symphony of the Soil* and *The Future of Food*) with the vision of creating a film "not just about agriculture, but about the story of farmers". Carol Pogash of the *New York Times* also attended the gathering and published her article on January 24, 2014 in its business section, titled "The Elders of Organic Farming".