OFFICIAL FEEDBACK FORM

DIALOGUE DATE	Tuesday, 6 April 2021 09:00 GMT -04:00
DIALOGUE TITLE	Boosting Nature Positive Agricultural Solutions: U.S. Farmer, Rancher, Grower Perspectives
CONVENED BY	Ernie Shea, President- Solutions from the Land
DIALOGUE EVENT PAGE	https://summitdialogues.org/dialogue/9149/
DIALOGUE TYPE	Independent
GEOGRAPHICAL FOCUS	United States of America

The outcomes from a Food Systems Summit Dialogue will be of use in developing the pathway to sustainable food systems within the locality in which they take place. They will be a valuable contribution to the national pathways and also of interest to the different workstreams preparing for the Summit: the Action Tracks, Scientific Groups and Champions as well as for other Dialogues.

1. PARTICIPATION

TOTAL NUMBER OF PARTICIPANTS

56

PARTICIPATION BY AGE RANGE

0	0-18		19-30		31-50		51-65		66-80		80+

PARTICIPATION BY GENDER

	Male		Female		Prefer not to say or Other

NUMBER OF PARTICIPANTS IN EACH SECTOR

	Agriculture/crops		Education		Health care
	Fish and aquaculture		Communication		Nutrition
	Livestock		Food processing		National or local government
	Agro-forestry		Food retail, markets		Utilities
	Environment and ecology		Food industry		Industrial
	Trade and commerce		Financial Services		Other

NUMBER OF PARTICIPANTS FROM EACH STAKEHOLDER GROUP

	Small/medium enterprise/artisan		Workers and trade union
	Large national business		Member of Parliament
	Multi-national corporation		Local authority
	Small-scale farmer		Government and national institution
	Medium-scale farmer		Regional economic community
	Large-scale farmer		United Nations
	Local Non-Governmental Organization		International financial institution
	International Non-Governmental Organization		Private Foundation / Partnership / Alliance
	Indigenous People		Consumer group
	Science and academia		Other

2. PRINCIPLES OF ENGAGEMENT

HOW DID YOU ORGANIZE THE DIALOGUE SO THAT THE PRINCIPLES WERE INCORPORATED, REINFORCED AND ENHANCED?

This dialogue followed the Chatham House Rule, which states that participants are free to use the information received, but neither the identity nor the affiliation of the speakers, nor that of any other participant, may be revealed. Plenary and breakout sessions will be recorded for in-house use only. In addition, participants were provided and were asked to follow the principles of engagement for the Food Systems Summit: 1. Act with urgency 2. Commit to the summit 3. Be respectful 4. Recognize complexity 5. Embrace multi-stakeholder inclusivity 6. Complement the work of others 7. Build trust

HOW DID YOUR DIALOGUE REFLECT SPECIFIC ASPECTS OF THE PRINCIPLES?

Our dialogue attracted a diverse cross section of U.S. farmers, value chain partners, researchers and conservation partners. Participants explored and shared ideas around the sustainable practices taking place on their farms/ranches and in their commodity sectors and discussed ways of further incorporating sustainable practices to reduce environmental impact and achieve outcomes that improve lives. Breakout group leaders posed the following questions to stimulate discussion: 1. What innovative practices are producers currently using to sustainably intensify production, reduce greenhouse gas emissions and deliver solutions to other Sustainable Development Goals? 2. What current incentives are most successful for scaling adoption of sustainable practices and what new incentives may be necessary? What action needs to occur to create those incentives? 3. What role does technology and innovation play in promoting sustainability on your farm? 4. What are some of the regulatory or research constraints or obstacles that need to be addressed to move this forward? 5. What information do you need to understand sustainable goals and how they apply to your farm?

DO YOU HAVE ADVICE FOR OTHER DIALOGUE CONVENORS ABOUT APPRECIATING THE PRINCIPLES OF ENGAGEMENT?

Be sure to extend invitations to participate to all types and sizes of farmers and ranchers, as all types of systems, practices and innovative approaches will be required to achieve food security and other sustainable development goals. in addition to appreciating and respecting the Principles of Engagement, we also found that the following guiding principles were helpful in forging consensus: - Context-specific priorities and solutions - Profitability as a central component - Uncommon collaboration - Farmers, ranchers and foresters at the center of discussions and decisions - Systems approaches that are scalable - Science in conjunction with farmers' experiential knowledge and indigenous innovation

3. METHOD

The outcomes of a Dialogue are influenced by the method that is used.

DID YOU USE THE SAME METHOD AS RECOMMENDED BY THE CONVENORS REFERENCE MANUAL?

✓	**Yes**		**No**

4. DIALOGUE FOCUS & OUTCOMES

MAJOR FOCUS

This Dialogue reflects a range of perspectives among many different types of agriculture and demonstrates that farmers understand the environmental, climate, social, economic, and health impacts of highly complex food systems. The ideas and approaches identified by the Dialogue participants are, at their core, guiding principles for shaping the transformation of food systems. Participants hope to offer a framework and make the case for ensuring that farmers have a prominent place at the table with other key stakeholders as recommendations are developed and implemented.

These suggestions come from North America, but are practiced in very different regions, climates, and geologies across the continent. The principles included here can be applied in many different parts of the world to enhance food security, improve nutrition and public health, enrich the soils, manage the waters, judiciously use nutrients, and adapt to climate changes – as well as build stronger multi-stakeholder partnerships along the value chain.

The Dialogue also shows how farmers, ranchers and other food producers have, for decades, practiced nature-positive agriculture and steadily expanded those efforts – for both environmental and efficiency reasons. They seek a balance in how agriculture as a whole becomes more sustainable, productive, and profitable, and envision a more collaborative approach to regulation and progress. That vision also includes a full toolbox that gives farmers a range of options to creatively meet and exceed broad goals.

The farmers in this Dialogue have posed questions such as: Where do we go next with innovation? How do we balance the way agriculture evolves (through innovation, research and market demand) with the need to regulate and guide it away from practices that threaten the environment? Farmers in this dialogue envisioned a new approach with regulations focused more on outcomes (healthier soil, efficient water use) rather than specific practices (reducing/measuring inputs). They recommended flexibility, instead of rigid top-down planning, to encourage new practices to evolve through trial and error.

Leading farmers have been on the regenerative bandwagon for decades, using no-till methods and cover crops; finding ways to reuse “waste” with biodigesters and gas lines for energy from manure; using hulls from one crop to mulch another; and more-effective irrigation, among other practices. With those decades of knowledge, what they seek going forward is:
• A place at the table for policymaking.
• A diverse toolbox and the opportunity to freely experiment with those tools.
• Localized food chains (along with broader ones) to ensure resilience.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

MAIN FINDINGS

Common themes. Here is a summary of the major ideas and recommendations that recurred in most of the five topic breakout sessions in this Dialogue.
General
• There is a disconnect between producers and consumers in evaluating the cost of food and value of food. In much of North America, there is a marketing focus on low price rather than high nutrition. Farmers would like to see "food security" discussed in terms of "nutrition security."
• The sustainability, efficiency and adaptability of practices will vary across geographies and farming conditions.
Value Chain
• Recommendations for nature-positive agriculture need to go beyond farmers. Many crop farmers rent much of the land they farm and must have long-term leases in order to not only implement more-sustainable practices, but to get the benefit of those practices and justify their investment in someone else's property. Likewise, contract growers in poultry and pork already are heavily invested in basic structures and equipment required by aggregators, restricting ability to spend on new management technology.
• For permanent crops, decisions made today can be in place for 25 years – so changing practices cannot necessarily occur from one crop year to the next.
• Cooperatives and collaboration up and down the value chain are important to farmers' ability to meet new goals. Whether through cost-sharing for composting facilities or anaerobic digesters, or pipelines for renewable natural gas, Sustainable Development Goals need to be on the agendas of all players in the value chain, and cognizant of the fact that one-size does not fit all.
Regulation
• Farm and regulator collaboration is a non-adversarial way to not only achieve environmental targets, but to make new strategies even more effective. Farmers and regulators need to talk and, more importantly, listen to and understand each other. Neither has the entire answer – they need to combine their knowledge and jointly develop solutions. Regulations need to be revised to address systems rather than specific targets on specific practices – which sometimes come in conflict with each other through different regulatory agencies.
• Entities that finance agriculture also need to be part of the process of meeting food security and other SDGs. Otherwise, their terms or leases can come in conflict the way farms seek to operate more sustainably.
Knowledge
• Agricultural research needs to become more holistic – as well as better-funded – in terms of both applied and much-needed basic research. Farmers need integrated research that studies a new method's benefits to multiple outcomes: nutrition content soil quality, water quality, air quality, renewable-energy generation.
• Research investment must go beyond commodity crops. Changing tastes and great variety will require specialized research to assist growers of specialty crops.
• Animal agriculture should be viewed as a part of a broad, diversified system – and as a solution rather than a problem. Its benefits in high-quality protein and in providing nutrients to and management of the land are essential parts of the circle of life.
• Knowledge sharing is essential – through Extension and research; field days; collaboration throughout agriculture and among different siloes; cooperatives, up and down the value chain.
Technical
• Technology and data, as in precision agriculture, are driving more and more of agriculture. Implement manufacturers are now data and technology companies. Technology needs to be scaled appropriately and made available and affordable to farms of all sizes, with continual outreach to keep farmers abreast of technology changes. Broadband access will become ever more important in nature-positive production, enabling global adoption of precision agriculture in harmony with nature.

What is needed:
1. Diversified and sustainable intensification of production strategies appropriate to different geographies, cultures and a wide variety of farm types and scales to produce high quality protein, grains, and fruits and vegetables and reconnect production processes that reintegrate livestock, aquaculture, and crop agriculture as systems to better recycle nutrients.
2. Private activities and public policies that incentivize markets and food system distribution infrastructure – ensuring food access to low-income households and vulnerable, benefit all scales of production. and provide profitable agricultural livelihoods.
3. Evidence-based and people-centered approaches that reflect the concerns of producers and multiple stakeholder groups to implement solutions and partnerships at landscape scale.
4. Systems-based agricultural research that is energized and integrated with SDG goals. Integrated research agendas should advance a systems approach to ensure health

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

OUTCOMES FOR EACH DISCUSSION TOPIC - 1/5

Discussion topic #1: Nature-positive strategies from producers of grains, feed, and oilseeds.
ADOPTING NEW PRACTICES. Most participants in this in this breakout session have used some combination of cover crops, no-till, strip-till, inter-seeding, and other practices for decades. But many say their neighbors thought they were crazy when they first adopted these practices. Such conservation practices are slowly becoming widespread, but improvement would come much more quickly with greater incentives – longer leases for rented land, longer partnerships for federal cost-share programs, compensation for early adopters of nature-forward practices, developing markets for carbon sequestration – which is a long-term process that needs ongoing credits. Providers of crop insurance also need to understand the benefits of nature-positive practices.

EDUCATION AND KNOWLEDGE-SHARING. Lenders, insurers, cost-share programs, regulators, and farmers need to be on the same page and work together on the long-term benefits of nature-positive practices. And they need to reach out to farmers who have been slow to adopt change. But agronomy and soil testing are part of that education – along with the technology of precision farming and understanding the varying needs across the land, even if different parts of the same field. Technology and data will drive many advances – especially when combined with farmers' common sense and knowledge of their land.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

OUTCOMES FOR EACH DISCUSSION TOPIC - 2/5

Discussion topic #2: Nature-positive strategies relating to grain production.
TECHNOLOGY is critical to the drive for nature-positive agriculture, but it must be adaptable to farms of all types and scales. Plant breeding innovations must continue their progress in reducing soil loss, water use, and herbicide use. Differences in soil, terrain, land-use and other factors can vary considerably even within the same area, meaning there is no one-size-fits-all strategy. Programs and policies must be flexible enough to allow creativity and experimentation to achieve desired results at the hyper-local level. Knowledge-sharing based on these types of solutions can be the most effective way to promote widespread change. This applies to farmer-to-farmer education as well as formalized classes through Extension or associations. It also can be valuable to learn from farmers in different geographic and commodity backgrounds. A grain farmer might learn something useful from an almond farmer.

CONTINUAL IMPROVEMENT – Farmers are making sustainable contributions because of environmental and climate imperatives, but also to achieve greater efficiency and effectiveness. Often this is best achieved through trial-and-error. Economics and the market help drive innovation, as farmers respond to business economics to cut costs. Farmers need to be at the table as academics and policymakers interpret new data and map out new agricultural strategies. Genetics, equipment, GPS, and precision agriculture are all factors in producing and reviewing the data.

INCREASING PRODUCTIVITY – More output for each input – whether it's investment, crop protection, genetics, time – means increased efficiency of production and has a huge positive impact on the environment. It also means collaborating with other groups in the supply chain, because each link affects, or is affected by, the others.
The group also raised the question of what measurement components are necessary for farmers to build and focus on. Targets that are based on differences across a county, across a continent, or around the globe.; a focus not on reduction of specific inputs, for example, but targets related to soil health, water conservation, nutrient management, and other factors related to the "circle of life" on the farm and its surrounding areas.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

OUTCOMES FOR EACH DISCUSSION TOPIC - 3/5

Discussion topic #3: Nature-positive strategies from producers of dairy and poultry, etc.
COLLABORATIVE REGULATION. The strategy for nature-positive production should focus on innovation by farmers, as opposed to a prescriptive plan by others. Regulations are essential, but the practices and tactics are best devised at local levels by farmers who already are seeking and crafting solutions that fit their geography and climate. Different farms have different types of innovation, depending on the contexts. It could be running the farmhouse stove from a methane digester fed by only eight cows, or it could be an international conglomerate bearing the expense of methane pipelines from hog lagoons to a gas plant. Small farms can adapt some of the efficiencies from integrated operations with economies of scale. Yet there need to be goals and guardrails – a regulatory roadmap – to keep farmers and regulators on the same page, learning from each other, and working together. One farmer spoke of meetings between regulators and farmers at which each learned of the other's challenges and reasoning, and found mutually beneficial ways to clean a bay. Sometimes, regulations from different agencies may seem to be in conflict. Such cases are ideal for different parties to collaborate and clear the air – literally and figuratively.
OTHER COLLABORATION. Rented land and the need for longer leases are barriers to new practices and technologies. Hog or poultry aggregators have specific standards for buildings, equipment, and processes – which makes it costly or against rules for growers to innovate. In these cases, and in others, participants said players all along the value chain need to be part of efforts to adopt nature-positive practices. This can help smaller and independent farms to adopt efficiencies from integrated operations.
A lot of waste-to-energy possibilities also may require collaboration. Perhaps cover crops that could be used along with animal waste to feed digesters; natural-gas companies could share the cost of pipelines from manure lagoons. Carbon sequestration and bio-char from forest waste are other possibilities. Strategies and technologies must be created in a way that allows them to be scaled down to meet the needs of smaller farmers.
Participants noted a profound lack of understanding on the part of some investors and regulators about the challenges of operating a farm. One example cited was of an investor wanting a 100-year lease on land to fund some research. Some of the regulations on investment from large-scale credit needs to be revised. These illustrate the importance of farmers having a place at the table for discussions of the politics and finance of agriculture.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

OUTCOMES FOR EACH DISCUSSION TOPIC - 4/5

Discussion topic #4: Nature-positive strategies from producers of beef and pork, etc.
Beef cattle, pork, and row-crop farmers provided multiple examples of innovation on their farms. On swine operations, for example, composting is a significant investment but has huge impacts on the operation and there are cost share programs available. A challenge is making sure other producers are aware of those incentives and programs.

In terms of the Food Systems Summit and nature-positive practices, farmers and others in the group want a clearer understanding of what the goal of the United Nations is. Producers share the view that all forms of agriculture need continual improvement. But they worry about recommendations that might seek to do away with one type of agriculture or some common practices: "What is the true end goal, and what are they or we trying to achieve and why? Is it a full transformation or is it continual improvement? As producers, we need more context and want to be involved in the process of developing solutions." Rather than being told what not to do, farmers want the research, support, and incentives to help them with continual improvement and new options.

To build on that point, the group talked about what a full transformation of our food system could look like. Communication around sustainability is important because each person or region's definition might vary slightly, and practices look different across the globe. Our producers emphasized the importance of avoiding the one-size-fits-all approach. The food system is fragile, so transformation must be approached cautiously and include the voice of farmers.

Beef producers, for example, have taken great strides in grazing management and taking advantage of new ways to utilize government cost programs. The swine industry has focused on implementing sustainability measures to mitigate methane and greenhouse gases. The pork industry over the last decade has been working on decreasing its environmental footprint – and has built partnerships up and down the value chain, making it easier to take on sustainability initiatives. Cost-share programs, both privately and publicly funded, are very important to these types of ventures.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

OUTCOMES FOR EACH DISCUSSION TOPIC - 5/5

Discussion topic #5: Nature-positive strategies from producers of specialty crops.
As in grains and livestock, specialty-crop farmers have for years been adopting nature-positive practices – though the change often has been as much for economic and environmental reasons (which underscores the argument that regenerative farming is not an economic burden). Among other improvements, producers have: re-used water from processing facilities to irrigate fields; diverted
excess storm water in orchards to "recharge" basins; used "waste" such as nut shells as compost for organic melon production; used hedgerows and bee forage to keep pollinator populations healthy; invested in "whole orchard recycling" to put organic material back in the soil; and used sensors to put the right amount of water in the fields.

THOUGH GROWERS MAY use hedgerows or cover crops to help pollinators, this may not be a sustainable practice in seasons when there are water shortages. They see continued need for research into bee disease – an environmental challenge with significant implications. Not all strategies work for all grower situations – that's why there is a need for a "dynamic, robust toolbox" to accommodate different crop conditions. Another example is finding new uses for byproducts – like the nutshells used as mulch or energy generation – that can enhance fruit, nut, and vegetable production while also helping other ag-related industries reduce their footprints. Finding new and better ways to compost, or returning materials to the soil contributes to carbon sequestration initiatives. Producers are constantly studying new technologies and trying them out.

As with other farmers, specialty-crop growers see a need for value-chain collaboration, but in their case consumer demand is more visible. If wholesale buyers talked more to farm-sustainability officers, they would have a better understanding that the sustainable practices consumers expect may require additional costs that are not always shared down the supply chain. Consumers may expect "all natural" products, though such programs can be hard to implement; or they may want year-round crops, which are a challenge in times of water shortage or increased pest pressures.

This also raises the question of North America's respect for and understanding of food – which is cheaper here than in most places on Earth. Does the price we're willing to pay for our food reflect the value we place on our environment? It's a question ripe for a national and global dialogue.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
✓	Human rights	✓	Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate

AREAS OF DIVERGENCE

For a diverse group of farmers and advocates from a range of specialties, there was astonishing little divergence in the morning of Dialogue. Representing different scales and types of farmers, participants spoke of a vision shaped by broad principles, even as each shared his or her own specific examples to make the case. The one noteworthy area of divergence was softened by a shared view of how it should be overcome. Farmers too often are blamed for environmental degradation, yet they are the vanguard of adapting the holistic "circle of life" to modern agriculture.

At least one key farmer-leader stressed that "Agriculture is not broken," adding, however, that "There's always room for improvement." Another countered that "maybe 10 percent of what we're doing is wrong – we need to own our past. But what about the other 90 percent? We are moving forward."

More important than these competing perspectives on where to begin the discussion, the group spoke with a unified voice in making the case for addressing urgent problems right now, while also envisioning continual improvement for the long term. And, they say, current and future change must be addressed not just on the farm but also along the value chain. The whole food system needs to be more nature-sensitive – including the regulatory and finance aspects.

When farmers look at continual improvement, they don't see steady, uninterrupted progress any more than Thomas Edison waltzed through all of his inventions. "I didn't fail 1,000 times," he said. "The light bulb was an invention with 1,000 steps." Great success is built on learning from things that initially went wrong. Farmers are looking to enhance their own land and production by learning from mistakes and trying new experiments.

ACTION TRACKS

	Action Track 1: Ensure access to safe and nutritious food for all
	Action Track 2: Shift to sustainable consumption patterns
✓	Action Track 3: Boost nature-positive production
	Action Track 4: Advance equitable livelihoods
	Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

✓	Finance	✓	Policy
✓	Innovation	✓	Data & Evidence
	Human rights		Governance
✓	Women & Youth Empowerment	✓	Trade-offs
		✓	Environment and Climate