Intl. Farming

Stewardship in Action: 2024

A SPECTRUM OF STEWARDSHIP

Table of Contents

To Our Partners, Growers & Community,

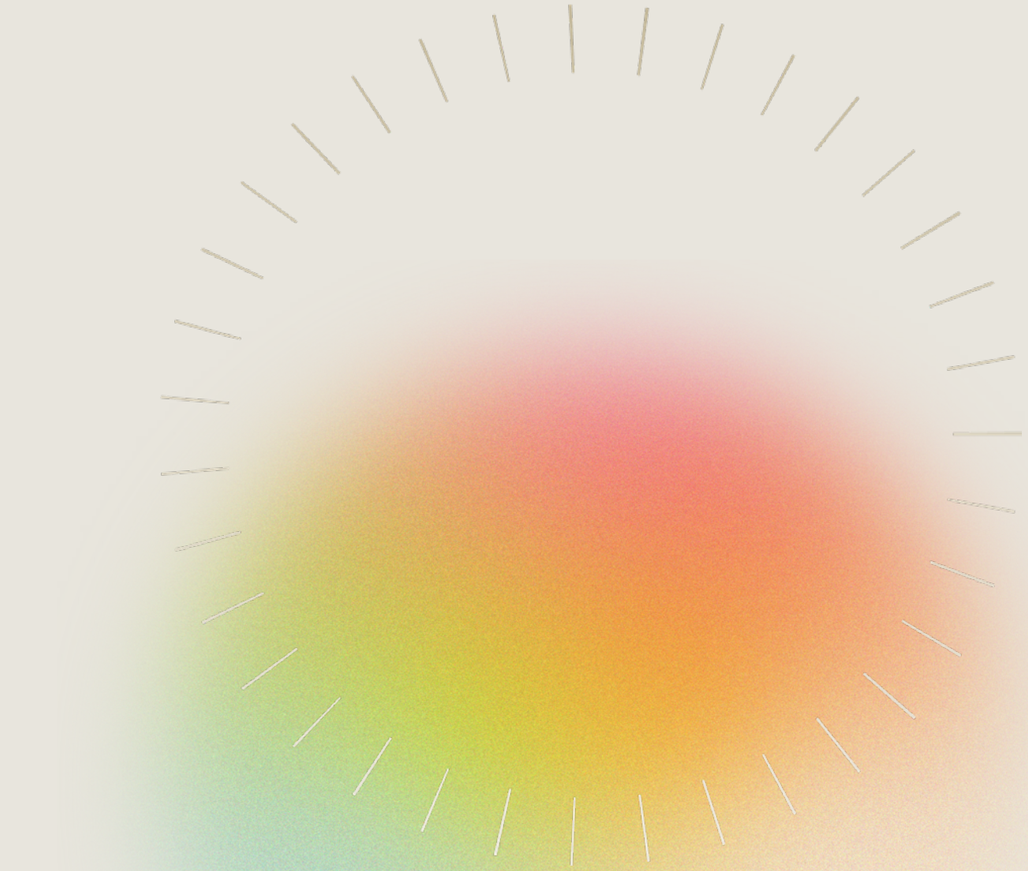
As we reflect on 2024, one theme rises above the rest: *intentionality*. In a time marked by extremes—record heat, water stress, and persistent volatility across food systems—we focused on what we could meaningfully influence: *protecting land, supporting growers, and creating the conditions for lasting value.*

● That focus led us to reexamine how we frame this report. For years, sustainability has often meant metrics and certifications. While essential, these alone cannot fully capture the complexity of agriculture—or the responsibility that comes with managing land, capital, and trust. In search of something more grounded, we returned to a principle that has guided us from the beginning: stewardship.

Stewardship is not a fixed destination—it's a daily practice. It requires long-term thinking, applied consistently through real decisions, not abstract ideals. Stewardship means not only adapting to change but co-creating it with purpose and discipline.
Real change doesn't happen in broad strokes. It happens on the ground—when farmers have the insight and means to lead meaningful transformation. True progress is built over time—through collaboration, consistency, and a shared commitment to the future of food and farming. In 2024, we put this belief into practice across millions of acres.

Thank you for walking this path with us and for believing in the long view. We invite you now to read this report not as a polished conclusion, but as an open window into how we are learning and evolving-year after year.

With Gratitude,
Charlie & Eli



A Spectrum of *Stewardship*

Our daily pursuit of a more sustainable food system is grounded in the realities of agriculture. It is shaped by conversations—between growers and agronomists, investors and food buyers—that take place while analyzing a soil report in the field, shaking hands over the hood of a pickup truck, or assessing new opportunities in a conference room. Over time, these moments form patterns, inform decisions, and help define what responsible stewardship looks like across different regions, crops, and operations.

Our work lies at the intersection of these roles. As farmers, we understand how decisions are made from season to season. As managers, we translate those decisions into durable operating systems. And as partners to institutional investors and global buyers, we help align agronomic factors with long-term goals. This position has helped shape our approach to stewardship not as a fixed ideal, but as a spectrum of practices, each adapted to a specific site, grower, and outcome.

Across this spectrum, we see firsthand how different approaches to food production—whether conventional, organic, or regenerative—intersect. Despite how they are often positioned, these models are not mutually exclusive. Many conventional growers are already using regenerative tools such as reduced tillage, cover cropping, and scouting, and most organic systems still depend on the broader infrastructure of conventional agriculture. As we work with the complexity of these systems, we stay grounded in our core goals: healthier soil, reduced inputs, stronger economics, and more resilient production over time.

Navigating these systems responsibly aligns with a broader movement. For us, regenerative agriculture is a set of practices that enable us to *Leave the Land Better Than We Found It*™. As a framework, regenerative agriculture offers a more holistic way to think about land use, input management, and biological health. But the central ideas behind regenerative agriculture are not new. They are rooted in longstanding land-based and Indigenous foodways that prioritize soil health, biodiversity, and interdependence between people and nature.

Apple Blossoms
Chelan, Washington

In many ways, the past century of industrial agriculture moved in the opposite direction. As farms scaled up and specialized, efficiency often came at the expense of ecological balance. With fewer farmers and more land under management, today's operators rely on advanced equipment, highly targeted inputs, and simplified systems. This shift helped meet the caloric needs of a growing population, but it also narrowed crop diversity and placed greater pressure on natural resources. Farming systems became more productive, but also more brittle.

Recognizing how the recent history of agriculture in the U.S. has changed the dynamics between people and nature is core to effective stewardship today. Many of our growers run large-scale operations shaped by these changes. Having that perspective allows us to identify opportunities for change where they matter most: within the systems already in place. Whether through conservation tillage, nutrient precision, or drone technology, we support the adoption of practices that strengthen farm resilience without compromising economic viability.

But even well-proven practices require trust. Thoughtful stewardship means recognizing that every new practice introduces risk for growers. That is why we focus on reducing the friction of transition. We work closely with early adopters to refine, validate, and extend learnings to others in our network.

With roots dating back to 1827, we have lived through generations of agricultural change. Today, we carry that history into a future where resource constraints and production demands must be held in balance. Our role is to help chart that course by gathering insights across the value chain and translating them into regionally grounded, financially sound action.

Our spectrum of stewardship does not rely on false binaries. *It is adaptive.*

And every farm, every season, every conversation gives us a clearer sense of how to cultivate a thriving food system.

Cherry Blossoms (Macro)
Chelan, Washington

Our Historical Footprint

A Global View of *Stewardship*

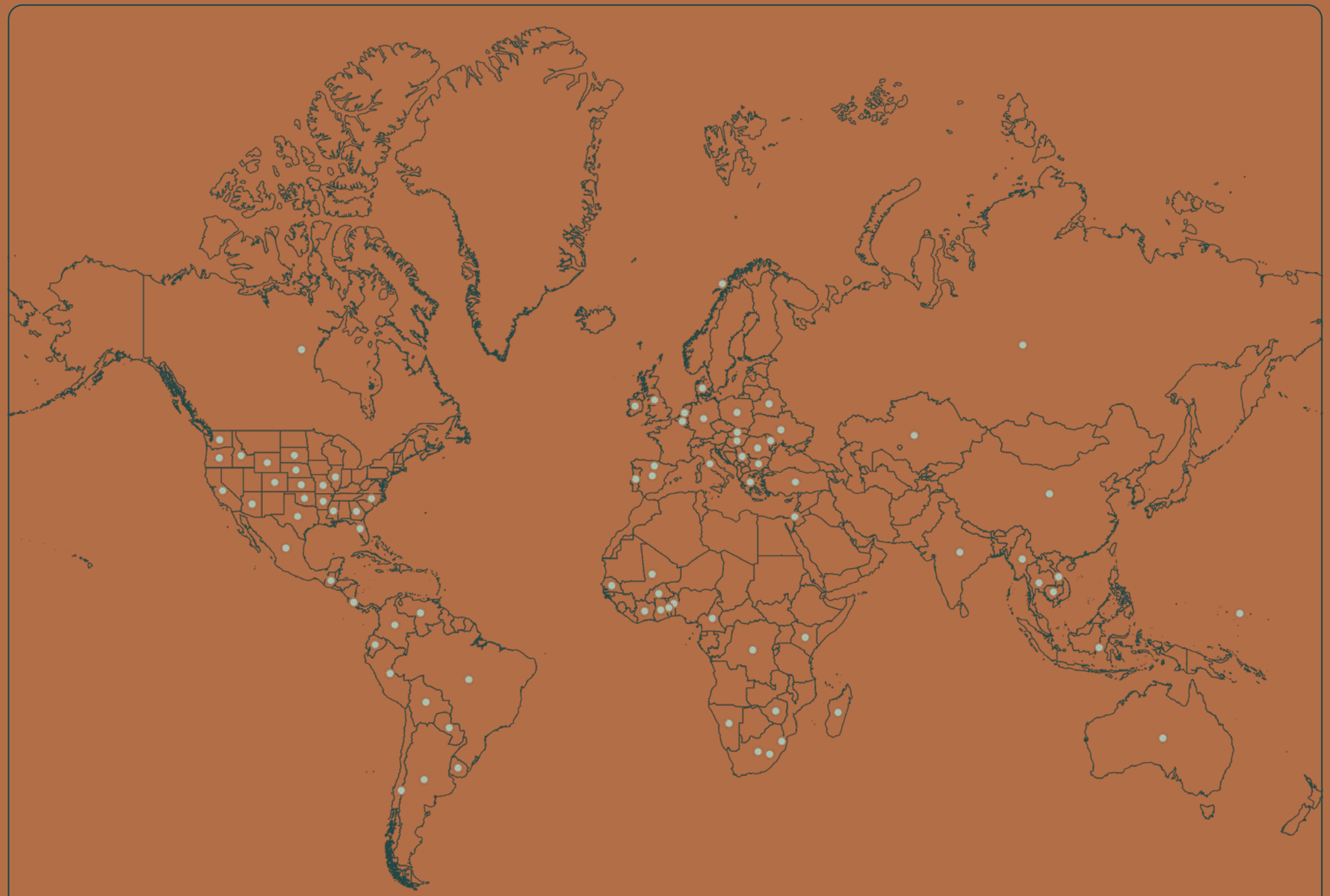
We sit at the center of a system that feeds the world. With that comes extraordinary responsibility to the soil underfoot, to the communities who farm it, and to the future we are shaping alongside our growers. We take pride in our ability to navigate that complexity with clarity and care.

This map and statistics offer a high-level look at where we operate and what we grow, capturing the scale of our work and the diversity of crops, regions, and climates we manage across the globe.

25M+
Gross Acres

66
Countries Reached

80+
Crop Types Grown & Managed



Note: This information represents the geographical span of portfolios managed by I.F. as well as I.F.'s tech companies. Refer to page 17 of the report for additional information regarding these platforms.

Empowering Growers

7–10

Apple Orchard
Chelan, Washington

Top Solutions®

At the heart of our work is a simple truth: *farming is both deeply local and globally vital.* In the U.S., each farmer feeds an average of 165 people, making their success essential to the stability of our food system. Our role at I.F. is to *support farmers* not only with capital, but *with partnership, insight, and the tools to thrive in a rapidly evolving landscape.*

Over the decades, we have built long-standing partnerships with some of the most capable and forward-thinking farmers in the country. Through our Top Grower® program, we partner with growers who blend deep regional knowledge with a willingness to explore new ideas. These growers are more than early adopters; they are stewards of progress who embrace regenerative practices that improve yields, reduce inputs, and restore soil health. They also demonstrate a commitment to sustainability, working alongside us to achieve meaningful goals.

Barley Grain
Idaho Falls, Idaho

Our Top Growers® follow best management practices backed by industry and academic research, ensuring their operations remain productive and responsible. They bring financial strength and vision to their work, often benefiting from scale or vertical integration. Their openness to testing new tools, sharing data, and adopting what works not only strengthens their own operations, but also enriches our broader network, driving impact across the communities we serve.

Our Top Trials® program takes this spirit of innovation further. Since our inception, we have worked side-by-side with growers to test and validate new technologies and stewardship practices that strengthen productivity while reducing environmental impact. Each year, our agronomy team conducts 10–15 trials focused on optimizing input use, enhancing soil health, and supporting data-driven decision-making. When trials prove successful, we share our findings across our network of Top Growers®, amplifying their impact and giving our growers the confidence to adopt new approaches. These trials are highlighted throughout this report.

Our Top Scouts® deepen our ties across rural communities, providing a direct link to local networks. These trusted scouts surface off-market opportunities and support grower relationships with timely insights and resources. Spanning eight of the nine agricultural regions in the U.S., they strengthen our presence on the ground and help ensure that we remain responsive to growers' needs. Thanks to this network, 90% of our deals are sourced off-market, allowing us to invest with conviction.

Two specialized branches of our Ag Services team bring this ecosystem together: Farm Management and Agronomy. Guided by a Ph.D. in soil fertility and chemistry, and supported by a GIS Specialist, a Certified Crop Advisor, and an agricultural engineer, this team blends academic rigor with practical experience. Their work, from irrigation optimization to detailed land assessments, informs our acquisition strategy and helps elevate farm performance over time.

Cultivating the Next Generation

Agriculture is evolving, and meeting future challenges requires a new generation of leaders equipped with innovative skills and diverse perspectives. *At I.F., we are committed to helping purpose-driven individuals pursue meaningful careers in agriculture,* creating pathways for more people to contribute to the strength of their communities. This commitment is reflected in our alliances with the following organizations, each helping to cultivate the next generation of agricultural leaders in unique and powerful ways.

North Carolina Plant Sciences Initiative *(NCPSI)*

- Through our alliance with NCPSI, we have created opportunities for emerging scientists by establishing the I.F. Graduate Student Award. These awards recognize and support students whose research and outreach shape the future of sustainable agriculture. In 2024, the program provided grants to four graduate students and awards to two undergraduates, helping ease financial burdens and allowing them to focus on their studies and community involvement.

By supporting NCPSI, we are investing in the future of agriculture by helping young leaders gain the skills they need to drive sustainable innovation.

Boots on the Ground

Each year, approximately 200,000 Service members transition out of the military and return to civilian life, often facing a lack of support and opportunities. As North Carolina's first registered agricultural apprenticeship program for military veterans, Boots on the Ground helps bridge that gap by connecting veterans with meaningful careers in agriculture.

In 2024, our alliance supported the program's Fourth Cohort, providing essential resources like stipends, safety gear, travel support, and ergonomic equipment. Graduates are already making an impact, applying sustainable practices like vermicomposting, high-tunnel production, and pasture-raised livestock, while building strong partnerships with food hubs and co-ops to diversify revenue streams.

J&J Martin Produce
Mount Olive, North Carolina

In May, the I.F. team visited two farms actively engaged with the Boots on the Ground program, including the award-winning J&J Martin Produce, and 12:03AM Farm, run by two graduates of the program. These farms exemplify what is possible when veterans are equipped with the tools, training, and support to thrive.

Photo Courtesy of A Place at the Table

Community Alliances

To us, true stewardship means going beyond soil health and field metrics. It means uplifting the communities in which we live and work. Throughout the past year, we have continued to strengthen our alliances with organizations that are making a real difference in our communities. By collaborating with groups focused on land and water stewardship, food security, mental health, and equity, *we are tackling some of today's most pressing challenges together.*

These partnerships reflect our commitment to creating positive change and supporting initiatives that make a tangible impact. In addition to the three mentioned here, you will find throughout this report information on organizations that we are grateful to work alongside and are *proud to call allies.*

A Place at the Table

● At I.F., we believe that building stronger communities starts with creating spaces where everyone feels welcome and supported. That is why we proudly continue our alliance with A Place at the Table, Raleigh's first and North Carolina's second pay-what-you-can nonprofit café. Since opening in 2018, the café has served over 255,000 meals to those in need, creating a space where people from all walks of life gather to share food and conversation. More than 80 individuals visit each day to either volunteer their time or work for their meal, creating a unique community-driven atmosphere.

In 2024, our support helped A Place at the Table expand its reach through "The Travelin' Table," a mobile program delivering 200–250 free meals each month to underserved communities. This initiative also partners with youth organizations like the Boys & Girls Club to support families and children in need.

Our alliance with A Place at the Table reflects our dedication to promoting dignity, connection, and food security in our community. As the café continues to grow and increase its outreach, we are honored to be part of their journey and support their mission.

American Red Cross

In September 2024, Hurricane Helene brought devastating impacts to agricultural communities across the Southeast, with Georgia's pecan industry facing especially severe losses. Statewide, an estimated 25% of pecan acreage was damaged or destroyed, with older trees being the most affected.

Fortunately, our high-density pecan plantings and modern infrastructure weathered the storm well, with less than 10% of our pecan crop impacted and no major losses to packing facilities or critical assets.

Recognizing that many others were not as fortunate, we made a donation to the American Red Cross to aid in regional recovery efforts. Events like this deepen our commitment to building enduring environmental resilience through responsible farming practices, forward-thinking infrastructure, and continued investment in innovation. Our thoughts remain with the growers and families who continue to feel the effects of Hurricane Helene.

Bee Downtown

Since 2019, we have partnered with Bee Downtown to support pollinator health and promote environmental stewardship in the communities where we live and farm. In 2024, the I.F. hives at our downtown Raleigh headquarters produced 288 pounds of honey. The bees pollinated within a three-mile radius and achieved a hive yield 118% above North Carolina's state average.

Urban pollinator habitats like these strengthen biodiversity and bring critical pollination services closer to community gardens, parks, and green spaces. Beyond our hives, Bee Downtown's work reached even further in 2024: impacting over 10 million acres, planting thousands of pollinator-friendly plants, introducing 29 million bees to 11 cities, and connecting more than 12,000 people to the role pollinators play in environmental sustainability. We are grateful to continue supporting Bee Downtown and to see the lasting benefits their work brings to agriculture, education, and our shared environment.

Investing Responsibly

11–14

An Intentional Approach

Investing responsibly means putting capital to work in ways that are grounded, informed, and built to last. We start with demand by partnering with food companies and institutional buyers to understand what the market truly needs, then work backward to ensure we are growing the right crops, in the right places, with the right partners. Every farm we consider undergoes a rigorous agronomic assessment, helping us understand its capacity, constraints, and operational longevity.

Aligning Growth with Demand

Our investment approach is rooted in demand-led production. Rather than deploying capital based on crop speculation, we begin by analyzing downstream needs and partnering with major food companies and institutional buyers to understand future sourcing needs. This information is integrated with on-the-ground insights from our farm managers and growers, enabling us to align production with real, verifiable demand. By anchoring our decisions in pull-based demand, we avoid mismatches between what is grown and what is consumed.

This approach reduces the risk of overproduction, minimizes food waste, and supports more efficient land and resource use. It also prevents investment in crops that are misaligned with regional growing conditions or future market trajectories. In an era where climate volatility and shifting consumer preferences are reshaping agricultural markets, investing from demand backward provides a more durable foundation for both environmental and financial stewardship.

Assessing Agronomic Metrics

Before we acquire a farm, we conduct a rigorous agronomic evaluation to understand its underlying productivity, constraints, and long-term resilience. Stewardship starts with understanding what the land can sustain, how it responds to water, and what it needs to remain healthy and profitable over time.

Our process is rooted in science and shaped by experience. We evaluate the physical landscape, the water infrastructure, and the farm's cropping history to ensure that what looks viable on paper holds up in practice. These insights help us align land with the right crops, management approach, and strategic investment.

Our agronomic assessments include:

Soil Health & Performance
- Texture, depth, and drainage
- Organic matter content and nutrient-holding capacity (CEC)
- pH balance, salinity, and erosion potential
- Presence of impeding layers or compacted zones
- Permeability

Topography & Elevation
- Slope and elevation variability
- Operability for modern equipment
- Erosion risk and water movement

Water Availability & Irrigation Infrastructure
- Water rights and seasonal availability
- Pumping capacity and system efficiency
- Condition and expected lifespan of irrigation equipment
- Maintenance and capital replacement planning

Crop History & Suitability
- Previous crop rotations and yield patterns
- Adaptability for specialty and alternative crops
- Integration of conservation practices (e.g., cover cropping, variable-rate seeding)

Climate Conditions
- Average precipitation and temperature
- Moisture balance (evapotranspiration vs. rainfall)
- Long-term climatic resilience

Satellite Imagery & Field Uniformity
- NDVI data to assess crop vigor and consistency
- Identification of underperforming zones linked to soil or slope

This level of granularity gives us the foresight to invest wisely, manage responsibly, and support outcomes that endure.

In a world of tightening water resources, shifting weather patterns, and rising input costs, *this work is essential* to building a durable, future-ready agricultural system.

Intl. Farming Stewardship in Action: 2024

Irregation System (Potato Field)
Vero, Florida

Managing Risk & Responsibility with Our Growers

The events of 2024 reinforced a truth many in agriculture have long understood: resilience depends on more than production. It is a product of stable financial systems, diligent risk management, and adaptation to changing market dynamics.

Within the year:

- U.S. net farm income declined by 23% compared to its peak in 2022[1]
- Working capital dropped 18%[2]
- Farm bankruptcies increased by 55% from 2023[3]

As inflation persisted, interest rates rose, commodity prices softened, and many growers across the country found themselves stretched. Many farms faced these challenges not because of poor yields or weak demand, but because their financial structures were overleveraged, underdiversified, and built on the assumption that yesterday's conditions would continue. Fixed debt payments, rigid lease terms, and capital-intensive infrastructure projects became liabilities in the face of market volatility.

Market Learnings from 2024

Heading into 2024, we were already focused on the fundamentals: managing input and water exposure, preserving flexibility, aligning with thoughtful lenders, and investing in systems that could withstand volatility. We did not avoid every challenge, but our principles helped us navigate through them.

Thin Margins + High Debt = Fragile Business
Fixed obligations and volatile incomes do not mix. Real farm debt reached its highest level since the 1980s crisis, at over $550 billion[4], leaving many operations with little flexibility to respond.

Liquidity Trumps Scale
Working capital, not acreage, proved to be the buffer that let producers defer sales, manage cash flow, and make disciplined decisions.

Growth Requires Guardrails
Debt-fueled expansion, especially into infrastructure or vertical integration, proved risky when pricing, labor, or weather did not cooperate.

Lenders Are Looking Differently
Creditworthiness was increasingly tied to water access, input discipline, and operational transparency, not just historical production.

Tool-Enabled Growers Had an Edge
Growers who had access to crop margin data, responsive tech systems, or higher-returning varieties (such as the Intl. Farming jointly controlled apple variety, SugarBee™) were often better equipped to adapt in real time and protect profitability.

At Intl. Farming, we have long held that leverage is a tool to be used with discipline. That is why we have prioritized liquidity over leverage, resilience over scale, and risk-adjusted margins over volume alone. We also invest in tools that enhance farm-level agility, from crop-level ROI insights to grower-facing platforms that support timely decisions in the field. This approach has and continues to shape how we operate.

Setting a Global Standard

2024 marked our renewed commitment to participating in a global community of responsible investors. *A key part of our strategy is holding ourselves to the standards set by leading alliances* in finance, agriculture, and impact. These organizations play an important role in shaping the benchmarks for responsible capital, transparent reporting, and sustainable land use. We are proud to continue learning from and contributing to these efforts alongside our peers.

UN PRI *(Principals for Responsible Investment)*

Since 2016, Intl. Farming has remained a proud signatory of the United Nations Principles for Responsible Investment (UNPRI), the world's leading initiative advancing responsible investing. With over 5,000 signatories representing more than $120 trillion in assets, UNPRI works to build a more transparent, accountable, and sustainable global financial system.

Its 2024–2027 Strategy Centers On Four Key Priorities

- Supporting signatories with tailored progression pathways
- Strengthening regional investment ecosystems, including in emerging markets
- Leading and facilitating collaborative initiatives to tackle system-wide risks
- Influencing global policy and market practices to reward long-term, responsible capital

By aligning with these principles, we affirm our commitment to investing in ways that support resilience, stewardship, and sustained value creation.

UNSDG *(UN Sustainable Development Goals)*

Our Work Directly Supports 7 UNSDG Goals

Peach Orchard
Fort Valley, Georgia

GIIN *(Global Impact Investing Network)*

2024 proudly marked our second year as a member of the Global Impact Investing Network (GIIN), the largest global organization focused on advancing investments that generate measurable social and environmental outcomes. GIIN supports a network of over 450 members across 60+ countries and is known for its research-driven approach to building credibility, standards, and data transparency in the impact investing field.

Our membership reflects our commitment to aligning capital with measurable impact, particularly in regenerative agriculture and responsible land use, while also contributing to the growing body of evidence linking investment performance with sustainability outcomes.

GLOBALG.A.P.®

Intl. Farming has been a member of the GLOBALG.A.P.® certification system since 2023. As a globally recognized standard for responsible agricultural practices, GLOBALG.A.P.® promotes food safety, environmental stewardship, and worker well-being through rigorous, independently verified protocols implemented at the farm level. With adoption in over 135 countries, participation in this program reflects our commitment to responsible production, operational transparency, and alignment with the expectations of global buyers and supply chain partners.

Applying Innovation

15—21

Peach Tree (Macro)
Fort Valley, Georgia

Dynamic by Nature

At Intl. Farming, we approach innovation on two fronts. The first is digital: building and investing in technology platforms that bring clarity and structure to decision making. The second is biological and agronomic: through our Top Trials® program, we test new products and practices directly in the field, alongside our growers.

These approaches work in tandem.

Our proprietary technology enables us to track and monitor which agricultural advancements have the greatest impact on yields and the environment. Furthermore, these platforms empower and enable major food buyers to transform their production systems and supply chains. *These capabilities, alongside our agronomic expertise, position us as industry-leading partners* for major CPG companies.

Data-Driven Decision Making: *Farmadvisor™*

Farmadvisor™ is the digital backbone of our investment and operating platform. It started as an internal platform within a global farming enterprise—5 continents, 60+ languages, complex operations across land, labor, logistics, and capital. It has now evolved into a modular, extensible agricultural operating system: AI-native, BYOD-integrated, and designed from day one for real-world complexity.

At its core, Farmadvisor™ solves one of agriculture's most persistent and complex pain points: data fragmentation. Financials, input records, leases, purchase orders, and soil data are often stored in disconnected formats across different platforms. Farmadvisor™ brings these datasets together in a structured, spatially accurate system, enabling a unified view of farm performance.

Farmadvisor™ gives growers, managers, lenders, and investors access to the same real-time information, improving planning, reporting, and execution across the board. What is especially powerful is Farmadvisor's™ embedded AI agent framework—designed to enable dynamic, role-based agents that operate across workflows like procurement, compliance, lending, ESG, and ops. These agents interact directly with data inputs, documents, and domain logic to surface insights, take actions, and reduce human bottlenecks across the stack. Farmadvisor™ is the kind of system-level architecture that enables real enterprise transformation.

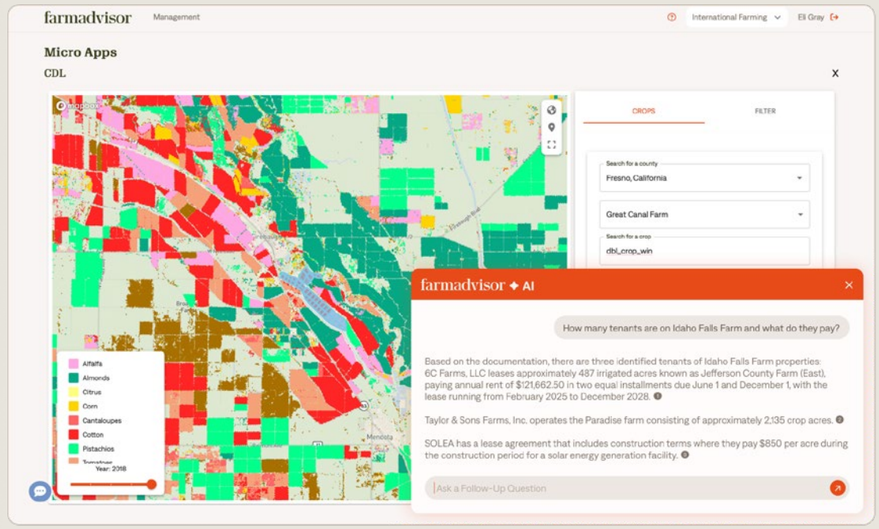
- Notable Statistics

$750M+
Farm Assets Traded

137+
Properties Onboarded

$3B
Assets Managed

13K+
Purchase Orders



Supply Chain Resilience: *CropTrak®*

CropTrak® is a digital supply chain integrity platform that connects global food brands with the growers and producers they depend on. Built to unify the food and agriculture value chain, CropTrak® supports clients across a wide range of business processes including plant breeding, seed production, grower management, contracting, logistics, and transportation. Every step is captured in one transparent, auditable system.

CropTrak® delivers field-level traceability by capturing and standardizing key sustainability metrics across water use, emissions, and operational activity. The platform tracks applied water and harvested tons by crop and year, quantifies Scope 1 and 2 GHG emissions by source, and calculates CO_2e per harvested unit. These metrics are directly tied to individual growers, parcels, and contracts—supporting automated reporting.

By directly linking supply and demand, CropTrak® helps food companies make faster decisions, strengthen grower relationships, and improve sustainability reporting. These capabilities are essential for navigating the complex demands of responsible sourcing, regulatory compliance, and growing consumer expectations for transparency. Trusted by some of the world's largest food processors, CropTrak® has managed data across millions of acres and 73 crop types across 66 countries, facilitating over $1 billion in grower payments via ERP.

- Notable Statistics

25M+
Actively Managed Acres

66
Countries

$1B
Digital Contract Payments via ERP

- Featured Clientelle

Tropicana	International Fresh Produce Association
PepsiCo	Coyote Canyon Winery
Olam	Beck's
Corteva	Weaver Popcorn
Del Monte	Benson Hill
Organic Girl	
Yara	
Lipman Family Farms	
Beckstoffer Vineyards	
FritoLay	
Maricopa Orchards	
Pivot Bio	

Top Trials®

Since 2012, I.F.'s Top Trials® program has been at the forefront of agricultural innovation. This initiative is designed to collaborate closely with our growers to test and validate cutting-edge technologies and practices that drive farm productivity and advance environmental stewardship. By serving as a proactive and supportive partner, we build trust with our growers, helping them to adopt new innovations with confidence. Each year, we conduct 10-15 trials that focus on delivering meaningful, data-driven insights.

- Through our Top Trials®, we tackle agronomic challenges by collaborating with growers, engaging with suppliers and innovators on the latest technologies, and partnering with leading academic institutions. Through our R&D Panel, we evaluate these ideas, select the most promising opportunities, and implement them alongside our growers. The results of these Top Trials® are shared across the I.F. network, fostering a culture of innovation and collaboration. Beyond delivering measurable results, Top Trials® deepen our relationships with growers, showcasing I.F.'s leadership in responsible stewardship and providing investors with a unique edge in achieving both sustainability goals and strong returns.

When the right technology meets the right farmer, small shifts can lead to *meaningful change.*

Watermelon Field
Vero, Florida

Fields of Focus

Our Top Trials® have traditionally focused on five key areas: Agronomy, Environmental Analytics, Integrated Pest Management, Plant Nutrition and Soil Fertility, and Genetics. As the agricultural landscape evolves, so too have our areas of focus. Plant Nutrition and Soil Fertility now encompass broader soil health initiatives, Environmental Analytics has expanded to include water conservation and efficiency, and Integrated Pest Management incorporates biologics and biostimulants. These updates reflect our commitment to addressing the shifting priorities and challenges in modern agriculture, ensuring our trials remain relevant and impactful.

Key Metrics

Consecutive years of Top Trials®: **13 (Since 2012)**

Number of Top Trials® since inception: **368**

Average yield increase: **11%**

Number of AgTech companies and university collaborations: **71**

Average ROI to the grower: **2.5:1**

2024 Top Trials® Conducted

In 2024, I.F. implemented 10 Top Trials® and evaluated 4 technologies that showed promise in terms of their ability to improve crop performance, optimize yield, mitigate risks, and save on labor.

Top Trials®

Beneficial Algae for Soil Health Improvements in Apples

Beneficial Algae for Soil Health Improvements in Sweet Corn

Biological Nitrogen Fixation to Improve Alfalfa Production

Comparing Zinc Products to Optimize Pecan Production

Cover Crop Effects on Improving Soil Health in Potato Production

Evaluating Center Pivot Irrigation in the Midwest for Greater Nitrogen Use Efficiency in Corn

Monitoring Nutrient Runoff in an Environmentally Sensitive Area

Supplemental Pollination on Almonds for Improved Nut Set

Utilizing Organic Seaweed to Improve Alfalfa Production

Utilizing Organic Seaweed to Improve Tomato Production

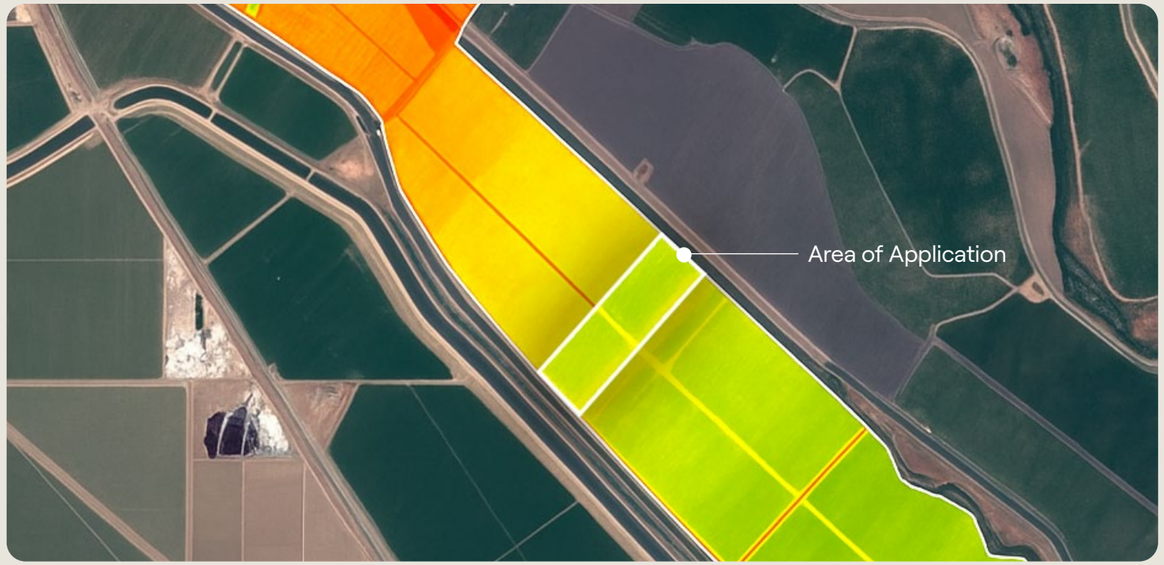
Technology Evaluations

Autonomous Electric Tractors for Reduced Greenhouse Gas Emissions

Orchard Fans to Mitigate the Risks of Climate Change

Robotic Apple Picker to Save Labor Costs and Improve Worker Safety

Utilizing a Nature-Based Crate Liner to Slow Peach Ripening



● Top Trial® One

Testing Seaweed's Impact on Increased Productivity & Nutrient Use Efficiency

The Question
Is it possible to boost tomato yields without increasing fertilizer use?

The Approach
In California's San Joaquin Valley, we launched a trial using Sarga's seaweed extract. This biostimulant is naturally derived from Sargassum, a fast-growing seaweed found in the Atlantic and Caribbean. While this species can overwhelm coastal ecosystems, its abundance of plant phytohormones made it a compelling candidate for regenerative inputs. Over the course of the growing season, we applied six treatments of the extract through the farm's drip irrigation system, spacing them every two weeks from transplant to fruit bulking. The treated plot was set side-by-side with an untreated control.

What We Found
The results were clear. Plants treated with Sarga showed noticeably stronger growth, confirmed both in the field and through satellite imagery, and delivered a 17% increase in yield. Most striking was the return: a 17% lift in per-acre net revenue, translating to a 15:1 ROI for the grower.

Why It Matters
This trial demonstrated that a naturally derived input, thoughtfully applied and supported by data, can produce measurable gains without increasing chemical use. In this case, seaweed extract offered a cost-effective way to support plant growth and grower economics, pointing to a broader role for regenerative inputs in high-value crop systems.

Top Trial® Two

Using Orchard Fans to Protect Against Spring Frost

The Question
Can orchard fans create a stable microclimate to preserve yields during frost?

The Approach
To answer that, we launched a pilot program in a Georgia peach orchard, installing Orchard-Rite frost protection fans across a select block. Microclimate sensors from GroGuru were deployed throughout the orchard to track temperature and humidity data. Our agronomy team analyzed conditions in both treated and untreated areas to measure how effectively the fans maintained safe temperatures during frost events.

What We Found
The data confirmed that the fans prevented multiple frost events from causing damage during bloom. Temperatures in the protected zones remained above critical thresholds, preserving vulnerable peach blossoms.

Why It Matters
This trial provided growers with a proven, scalable strategy for mitigating environment-related risks. By reducing frost exposure, the fans not only protected yield but also gave growers more confidence in season planning. These results support further investment in orchard fans across Georgia orchards.

Top Trial® Three

Remote Sensing Resolves Irrigation Challenges

The Question
How can we fine-tune irrigation practices to ensure optimal water use and maximize yields in almond orchards?

The Approach
To test this, we installed drain tiles and active drainage pumps at an almond ranch in California's Delta region to improve soil conditions and root development. However, these improvements also created a new challenge: determining exactly how much water was needed for tree health in faster-draining soils. To address this, our agronomy team used multiple remote sensing technologies to assess soil and tree hydration, moving beyond assumptions to data-driven irrigation strategies.

What We Found
Soil moisture sensors tracked water availability at various depths, while stem water potential sensors measured tree hydration, much like a blood pressure cuff tracks human circulation. Aerial imaging and heat mapping provided additional insights, highlighting areas of water stress across the orchard. These tools revealed that trees were using water faster than anticipated, prompting adjustments to irrigation schedules and flow rates.

Why It Matters
These refinements allowed the grower to match water application precisely to the orchard's needs, improving tree health and yield potential while avoiding unnecessary water use. By blending advanced sensing technology with on-farm expertise, we demonstrated how careful stewardship of water, one of agriculture's most precious resources, can support sustainable productivity.

Our work starts in the field.
When growers prosper, so do the futures we cultivate. Returns deepen, trust grows, and impact takes root.

Harvested Barley Field
Idaho Falls, Idaho

How Top Trials® Create *Value*

Helps Growers Succeed
Introducing innovations that help growers boost efficiency and profitability.

Helps Value of the Land
Enhancing yields and operational efficiency increases farmland values.

Helps Sustainability Initiatives
Empowering growers to adopt sustainable practices drive environmental impact reduction and operational improvement.

Helps Increase Revenue
New technologies from Top Trials® boost grower yields and revenue, with shared gains under Flex Rent agreements.

Helps Informed Decision–Making
Top Trials® data empowers growers to make informed decisions, optimizing efficiency and boosting their bottom line.

Leaving the Land Better Than We Found It™

22—29

"Comprising less than 5% of the world's population, *Indigenous people protect 80% of global biodiversity.*"

– NATIONAL GEOGRAPHIC

The Three Tenets of Regenerative Agriculture

At its core, regenerative agriculture is grounded in place. Many of the Indigenous communities that first used these practices viewed land as a living system, defined by unique soils, climates, and ecological relationships that resist standardization. This form of growing allows farmers to be creative, adopting regenerative principles into conventional systems.

Our regenerative approach is grounded in three tenets: soil health, water use efficiency, and biodiversity. Soil health serves as the foundation of productive and resilient agricultural systems, influencing everything from nutrient cycling to carbon storage. Water is one of agriculture's most strained resources, making its efficient use critical to long-term viability. Biodiversity is both a product of and a contributor to healthy soil and water systems. Microbial life, pollinators, and both aboveground and belowground species all play a role in supporting farm-level ecological function.

These principles are embedded not only in our field trials and farm operations, but also in the structure of our business. In 2024, we continued to elevate these practices through the introduction of a formal lease sustainability addendum. This addendum sets the expectation that all tenants implement baseline stewardship practices, including nutrient and irrigation management, erosion control, habitat preservation, and workforce safety. We also created a deforestation policy that prohibits investment in properties where natural forest types or biome classifications are uncertain. Together, these tools reinforce our commitment to regenerative outcomes at scale.

Tenet One: *Soil Health*

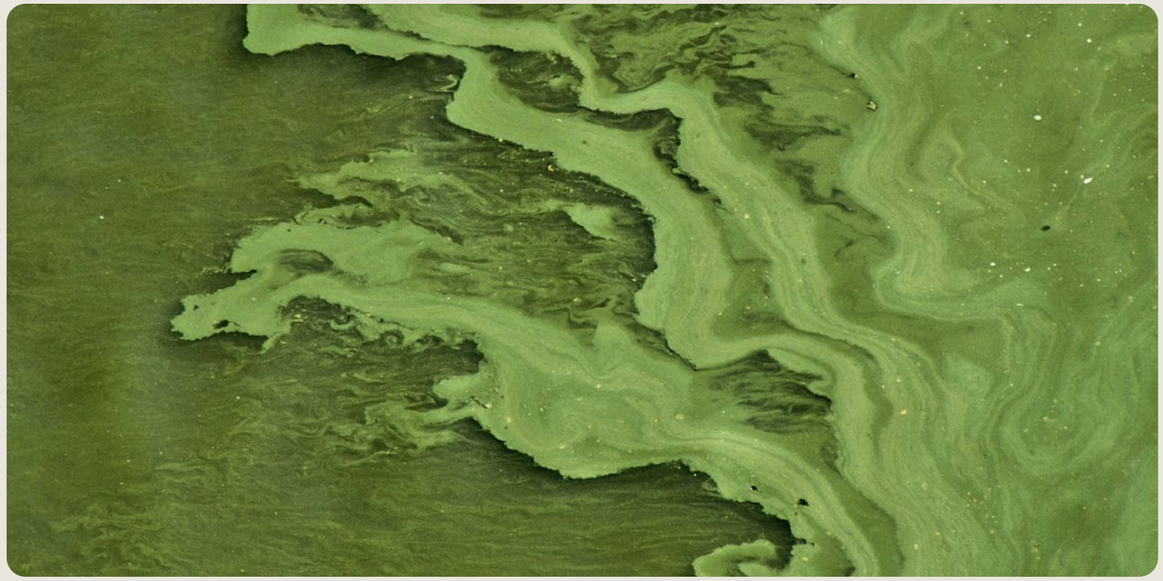
Improvements in soil structure and function—particularly through increases in soil organic matter—enhance nutrient cycling, promote water infiltration and retention, and reduce compaction and runoff. A substantial body of academic research has demonstrated the benefits of conservation tillage, cover cropping, and the application of organic amendments such as compost in maintaining and restoring soil health across diverse cropping systems.

Despite this evidence, soil degradation remains a critical and accelerating threat. In the U.S., an estimated 4.6 tons of soil are lost per acre each year, amounting to approximately 1.7 billion tons annually. This rate of erosion results in an estimated economic loss of $13 billion and reflects a broader trend of soil depletion occurring at a pace ten times faster than natural regeneration.[5] Without intervention, the integrity of the agricultural base may be compromised within the next 60 years.[6]

In response, our Farm Management and Agronomy teams have conducted soil testing across more than 300,000 acres, evaluating fourteen biological, chemical, and physical indicators of soil function. These findings inform the implementation of regenerative interventions across our portfolio, including seaweed extract, biologically-fixed nitrogen, and beneficial microbes.

Example Soil Health Test Parameters	What Positive Soil Health Means for Ag
Active Carbon	Improved Crop Yields
Organic Matter	Reduced Erosion & Runoff
Soil Aggregate Stability	Better Water Retention
Estimated Biological Nitrogen Mineralization	Enhanced Biodiversity

Across the U.S., *we lose an average of 4.6 tons of soil per acre every year,* adding up to 1.7 billion tons nationwide.[7]



● Top Trial®

Testing Algae's Role in Soil Health & Apple Productivity

The Question
Can a native, biology-based input improve both soil health and yield performance in a commercial Honeycrisp orchard?

The Approach
At a Washington apple orchard, we partnered with MyLand, a "Soil as a Service" technology company, to trial a soil-applied algae system. The algae were fermented on site and derived from native soil samples, then injected periodically through fertigation across a 40-acre block. A second block of the same variety and age served as the untreated control. Over two seasons, we monitored yield, soil biology, and economic return.

What We Found
In both 2023 and 2024, the treated block consistently outperformed the control, delivering an average yield gain of five bins per acre. At a farmgate price of $300 per bin, that equated to $1,250 per acre in added net revenue after costs, a 5:1 ROI. Soil testing confirmed biological improvements, with microbial activity measured by Solvita CO_2 showing a 12% increase in the treated area over the two-year period.

Why It Matters
This trial showed how a targeted, natural input can support both soil function and grower returns. By feeding the soil's microbial community, the MyLand system unlocked productivity gains without added inputs. This outcome illustrates the potential of microbial tools in perennial systems.

Tenet Two: *Water Use Efficiency*

Around the world, about 70% of freshwater withdrawals support agriculture. In the Western U.S., that figure climbs to 80–90%, underscoring both the region's dependence on irrigation and the growing pressure to steward water differently.[8] With a quarter of the country and over 100 million acres of major U.S. crops facing drought, water policy is bringing tighter regulations on regional agricultural use.[9]

We are leveraging our expertise to navigate these changes, analyzing how policies like California's Sustainable Groundwater Management Act (SGMA) will shape land use, crop selection, and lasting asset performance across regions. Different crops carry different water risk and understanding that nuance is key to making durable decisions.

In 2024, we invested in high-efficiency irrigation systems designed to conserve water and protect soils. We partnered with organizations like the Water Education Foundation to expand our reach and explored new water conservation strategies.

What Water Use Efficiency Means for Ag

- Higher Yields Per Drop
- Water Savings and Lower Energy
- Improved Soil and Environment
- Stronger Economic Outcomes

By 2050, *global water demand is projected to increase by 20–30%*, driven in part by growing agricultural needs as populations rise and consumption patterns shift.[10]

Case Study: *Water Efficiency Improvements at Great Canal Farm*

At Great Canal Farm (GCF) near Firebaugh, CA, I.F. partnered with Landmark Irrigation and the Central California Irrigation District (CCID) to improve water use efficiency across the farm's 800+ acres. Through the District's Water Conservation Program (WCP), which offers grant funding and low-interest loans, I.F. transitioned GCF from flood irrigation to a high-efficiency dripline system.

Before acquiring GCF, irrigation was managed through traditional flood methods. Recognizing the need for more sustainable practices, I.F. worked with CCID and Landmark Irrigation to invest $1.7M in the project, with $800K secured through the WCP. Landmark Irrigation supplied the materials and led the installation, ensuring the project met the highest standards of water stewardship.

Measured results from the CCID show that the new dripline system improved water use efficiency at GCF by 60% compared to historical practices. This translates to an estimated 1,600 acre-feet of water conserved each year, supporting both on-farm sustainability and regional water supply stability. Reduced water demand also lowers power consumption and associated greenhouse gas emissions by cutting the volume of water delivered and distributed on the farm.

Importantly, water saved through WCP-funded projects like this one does not just stay on the farm. CCID reallocates conserved water to neighboring wildlife refuges, communities, and water districts in need, reinforcing the interconnectedness of farming, conservation, and community wellbeing.

Water Education Foundation

Our alliance with the Water Education Foundation (WEF) supports their mission to educate and engage stakeholders on water sustainability, conservation, and policy across the Western U.S. Through initiatives like Project WET, the foundation has trained hundreds of educators, equipping the next generation with knowledge on groundwater recharge, flood control, and sustainable water management, all essential to agriculture and the communities it supports.

Beyond education, this partnership helps expand WEF's research and policy discussions, from climate resilience and groundwater management to infrastructure improvements that strengthen future water security. In 2024, Bryce McAteer, VP of Investments at I.F., was elected to serve a three-year term on WEF's Board of Directors beginning January 1, 2025. Through this alliance, we are reinforcing our commitment to sustainable agriculture and informed decision-making, ensuring that water remains a vital resource for generations to come.

Apple Tree Grafting & Drip Irrigation
Chelan, Washington

Tenet Three: *Biodiversity*

Biodiversity, encompassing plant, animal, and microbial life both above and below ground, is a critical determinant of agricultural system health. Diverse biological communities support key ecosystem functions including nutrient cycling, pest suppression, pollination, environmental regulation, and water quality improvement. On agricultural operations, greater biodiversity has been shown to enhance soil function, increase yield stability, and reduce reliance on chemical inputs.

However, global climate conditions have contributed to a steep decline in biological diversity. Specifically, within agriculture, monoculture cropping, increased use of synthetic fertilizers and pesticides, and mechanized field operations have significantly altered habitat conditions. Since 1970, global biodiversity has declined by an estimated 70%, threatening the long-term sustainability of food production systems.[11]

In recognition of these risks, we work with growers to implement practices that reduce pressure on biological communities, including cover crop diversification, pollinator habitat restoration, and integrated pest management. These strategies are supported by ongoing monitoring and the use of precision technologies to better understand and preserve the living systems that underpin agricultural productivity.

What Enhanced Biodiversity Means for Agriculture

- Boosts Crop Pollination
- Improves Fruit and Seed Set
- Supports Ecosystems Both Above and Below Ground
- Enhances Soil Health

Roughly one in every three bites of food we eat depends on pollinators, and over $15 billion in U.S. crop value is directly attributable to their work.[12]

Protecting Pollinator Health

Pollinators, especially honeybees, are foundational to our agricultural ecosystem. Roughly one in every three bites of food we eat depends on pollinators, and over $15 billion in U.S. crop value is directly attributable to their work. From almonds and berries to melons and vegetables, much of the diversity, nutrition, and economic vitality of our food system begins with a bee. Yet, in 2024, that foundation showed alarming signs of strain.

Commercial beekeepers across the U.S. reported catastrophic colony losses, with over 1.1 million colonies lost between June 2024 and February 2025.[13] These losses, driven by climate extremes, pesticide exposure, poor forage quality, disease, and the stress of migratory pollination, had a profound economic impact: an estimated $634.7M in direct and indirect losses, from reduced honey production to higher pollination costs for growers.[14]

As a critical component of our operations, supporting pollinator health is one of the clearest ways to improve ecological health and ensure economic stability. Through innovative Top Trials®, like testing artificial pollination, cover cropping, and soil amendment application, we are finding creative approaches to boost biodiversity.

I.F. HQ Bee Hives
Raleigh, North Carolina

● Top Trial®

Testing Microbial Diversity & Pathogen Reduction

The Question
To what extent do mustard cover crops reduce pathogen pressure and build soil microbial populations?

The Approach
At one of our seed potato farms in Idaho, we partnered with the grower and Solena Ag, a biotech company using AI to analyze soil microbiomes, to run a trial measuring the biological impact of mustard cover cropping. Following harvest, the grower planted mustard on half of a pivot circle while the other half was left fallow as a control. After the cover crop was tilled into the soil, our Agronomy team collected soil samples from both sides of the field. These samples were analyzed using Solena Ag's Prometheus platform, a powerful microbial analysis tool designed to detect changes in biological diversity and pathogen load within the soil microbiome.

What We Found
Results showed meaningful impact. Eight out of twelve key soilborne pathogens were found in higher concentrations in the untreated area, indicating that the mustard cover crop had effectively suppressed many of the most common agricultural diseases. Even more encouraging was the improvement in microbial diversity or "biological capital." In the treated section, this diversity suggested a soil environment more capable of supporting plant health and resisting future stress.

Why It Matters
Beyond the biological metrics, this trial delivered something equally valuable: clarity. With side-by-side data and direct comparisons, the grower gained insight into how specific cover crops like mustard can enhance soil health, reduce key pathogens, and increase microbial diversity. These findings help refine crop rotation strategies and reinforce the role of cover crops as a powerful tool in regenerative practice.

Building Resilience

As the role of farmland continues to evolve, we see an opportunity to use land not only for growing food, but for *supporting broader environmental solutions.* Today, stewardship requires adaptability. It means looking beyond the field and recognizing how farms can contribute to cleaner energy systems, reduced emissions, and lasting climate solutions.

● The following projects are part of a growing commitment to invest in scalable solutions that meet the moment while preparing for what is ahead.

Carbon Capture & Storage

In 2024, we completed the first year of a 10-year development agreement with Carbon TerraVault (CTV) at our 1,277-acre Roberts Island Farm in California's Delta region. CTV, a joint venture between California Resources Corporation and Brookfield Renewable Partners, is advancing carbon capture and sequestration (CCS) projects to help reduce emissions from industrial sources. Their approach involves capturing carbon dioxide from nearby facilities and storing it deep underground in depleted geologic reservoirs, keeping it permanently sequestered and out of the atmosphere.

Roberts Island sits atop one of the region's most promising formations for carbon storage, known as the Mokelumne formation. While no surface activity is permitted on the farm itself, CTV holds the option to lease the subsurface for up to 30 years to store carbon dioxide. In return, the farm receives annual payments during the 10-year development phase, with additional compensation if storage operations move forward. This project reflects our continued commitment to responsible land use by aligning long-term value creation with real environmental impact.

Behind-the-Meter Solar Project

In 2024, Cadell Orchards partnered with Australian energy company AGL to install a solar-powered microgrid at its Sunraysia almond orchard. The system includes a five-hectare solar array and on-site battery storage, designed to power irrigation with clean, renewable energy. By the end of the year, the system was fully operational and supplying most of the orchard's electricity needs. It now provides ~85% of its annual power while significantly reducing the farm's reliance on diesel.

The project is expected to cut carbon emissions by more than 5,000 tons each year, the equivalent of taking over 1,500 cars off the road. Encouraged by its success, a second microgrid is now under construction at Canally Orchard and is set to launch in 2025. We are also developing a larger system to support future post-harvest operations, helping us move one step closer to a cleaner, more efficient supply chain.

Our Region-Specific Approach

● Actionable ● Actionable with Effort ● Not Actionable

STATE	FARM	MAXIMIZE SOIL COVER	MINIMIZE SOIL DISTURBANCE	MAXIMIZE PLANT DIVERSITY	MAXIMIZE LIVING ROOTS	INTEGRATE LIVESTOCK
California	Great Canal	● Not practical for this type of crop (tomatoes) due to food safety concerns.	● Farm undergoing conversion.	● Conservation area can be planted in natural and wetland species.	● N/A given crop type and food safety concerns.	● N/A given crop type and food safety concerns.
	Emporia Farm	● Planting optimal cover crop mixture in perennial crops.	● Converting from cotton to tomatoes.	● N/A; only two permanent crops are planted.	● Converting from cotton to tomatoes.	● Not practical for tomatoes due to food safety concerns.
	Lincoln Avenue	● Fallow fields planted with triticale. Planting cover crops in the almond orchards.	● Tillage minimized for permament crops.	● Existing crop mix promotes biodiversity, potential for legumes on fallow ground.	● The permanent crops ensure that roots and their benefits remain in the soil.	● N/A due to food safety concerns.
	Luckey Ranch	● Using alfalfa as cover crop.	● The farm is managed using continuous no-till for 4–5 years.	● Challenging given crop rotation.	● Using alfalfa as cover crop.	● Grazing may be considered as a potential land use.
	Mancebo	● Planting cover crops.	● Farm undergoing conversion.	● Farm undergoing conversion.	● Farm undergoing conversion.	● N/A due to food safety concerns.
	Roberts Island	● Planting optimal cover crop mixture.	● Tillage minimized for permanent crops.	● Challenging given crop rotation, potential for cover crop mix.	● The permanent crops ensure that roots and their benefits remain in the soil.	● N/A due to crop type.
Florida	Crow's Nest	● Cover crop for in between crop seasons.	● Difficult for annual crop on sand.	● Strong biodiversity.	● Achievable with summer cover crops.	● Some portion could be grazed.
Idaho	American Falls	● Difficult to achieve due to short growing season and crops.	● Tillage necessary for potato harvest.	● Option to enhance natural habitats in pivot corners.	● Not practical.	● Some fields can be grazed.
	Holbrook Properties	● Planting optimal cover crop mixture; tenet doubling as an IPM tool.	● Not practical on potato acreage.	● Well-established cover crop usage.	● The use of cover crops ensures that growers maintain living roots in the soil for extended periods.	● N/A due to crop type.
	Idaho Falls	● Using alfalfa and Timothy as cover crop.	● Not practical on potato acreage.	● This farm cultivates a diverse range of crops. Natural vegetations on pivot corners.	● Using alfalfa and Timothy as cover crop.	● Currently integrated.
Missouri	Dunklin County	● Potential for cover crop mixture	● Very difficult given crop rotation.	● Difficult given crop rotation.	● Difficult given the crop rotation.	● N/A due to crop type.
	Little River	● Potential for cover crop mixture	● Very difficult given crop rotation.	● Difficult given crop rotation.	● Could be a good test for cover crop.	● N/A due to crop type.
Nebraska	Great Plains	● Converting conventional cornland into organic alfalfa.	● Not practical on potato acreage. Achievable on other acreage.	● Great biodiversity.	● Currently implemented in alfalfa fields.	● Currently integrated.
Oregon	Whitehead Farm	● Planting optimal cover crop mixture.	● Tillage minimized for permanent crops.	● Challenging given crop rotation, potential for cover crop.	● Permanent crops and cover crops ensure continuous living roots in the soil.	● N/A due to crop type.
Washington	Eltopia	● Planting optimal cover crop mixture.	● Not practical on potato acreage. Other crops are suitable for reduced tillage.	● Great biodiversity.	● Difficult given the crop rotation.	● Currently integrated.
	Hinterland	● Planting optimal cover crop mixture.	● Tillage minimized for permanent crops.	● Three crops are planted, large portion of farm remaining in its natural state.	● Permanent crops and cover crops ensure continuous living roots in the soil.	● Grazing may be considered.
	North Country Orchard	● Planing optimal cover crop mixture.	● Tillage minimized for permanent crops.	● Three crops are planted, large portion of farm remaining in its natural state.	● Permanent crops and cover crops ensure continuous living roots in the soil.	● Grazing may be considered.
	Quincy Tree Fruit	● Planting optimal cover crop mixture.	● Tillage minimized for permanent crops.	● Challenging given crop rotation, potential for legume cover crop.	● The permanent crops ensure that roots and their benefits remain in the soil.	● N/A due to crop type.

Leading Harvest

Agriculture today faces unprecedented challenges, from environmental shifts to evolving policy landscapes. *Lasting impact requires collaboration* with organizations committed to advancing responsible stewardship. Our partnership with Leading Harvest represents our larger commitment to sustainable agriculture, responsible investing, and global impact.

Potato & Barley Fields
American Falls, Idaho

● One of our most impactful alliances is with Leading Harvest, an independent nonprofit promoting sustainable agriculture through measurable standards and third-party accountability.

As a Founding Participant, I.F. has played a pivotal role in shaping the standards that guide responsible farming practices worldwide. The Farmland Management Standard (FMS) sets rigorous benchmarks for water use efficiency, crop input management, energy conservation, soil health, and biodiversity, while also prioritizing the well-being of tenants and local communities. We enrolled 100% of our Core Fund Farmland properties into the program in 2022 and have continued to align with the standards every year since. In 2024, I.F. received 8 honorable mentions across areas including conservation, tenant well-being, and water use efficiency. This recognition reinforces our ongoing promise to Leave the Land Better Than We Found It™.

Looking ahead, we remain committed to full enrollment in the program and to advancing sustainable farming solutions. Through this alliance, we aim not only to meet the standard but to help set a higher one.

The Vowels of Progress

At the Leading Harvest Summit in December, I.F. President Eli Cheatham delivered the keynote, *The Vowels of Progress.* Throughout her address, Eli outlined a powerful framework for change—*Awareness, Empathy, Innovation, Ownership, Urgency,* and *Yearning*—and called on agricultural leaders to lead with purpose and imagination as co-creators of progress.

Eight Callouts from Leading Harvest

Backing Farmland Conservation *(One)*
Supporting Soil Health *(Two)*
Prioritizing Regional Water Conservation *(Three)*
Deploying Renewable Energy *(Four)*
Reducing Greenhouse Gas Emissions *(Five)*
Reducing Food & Agricultural Product Waste *(Six)*
Pursuing Community Engagement *(Seven)*
Leading Agricultural Innovation *(Eight)*

Section *Six*

Looking Ahead

30—33

Lessons That Lead Us

The past year reminded us that resilience is not just about withstanding challenges; it is about adapting and growing stronger. In 2024, we learned that *flexibility and focus are just as essential as ambition.* We saw firsthand how the right partnerships, practices, and principles can guide us through uncertainty and position us to thrive. As we look ahead to 2025, we are carrying these lessons forward, deepening our commitment to stewardship and investing in the people and practices that build healthier farms, stronger communities, and a more secure food system.

2025 Top Trials®

- In 2025, I.F.'s Agronomy team is conducting a series of impactful Top Trials® and technology evaluations. Each of these trials is designed with one goal in mind: to empower our growers to optimize crop productivity and yield while reducing environmental impact.

These Initiatives Include

Optimizing Pollination
Modifying bee behavior to enhance pollination efficiency

Advancing Soil Health
Continuing the use of native algae to boost soil health in orchards and row crop production

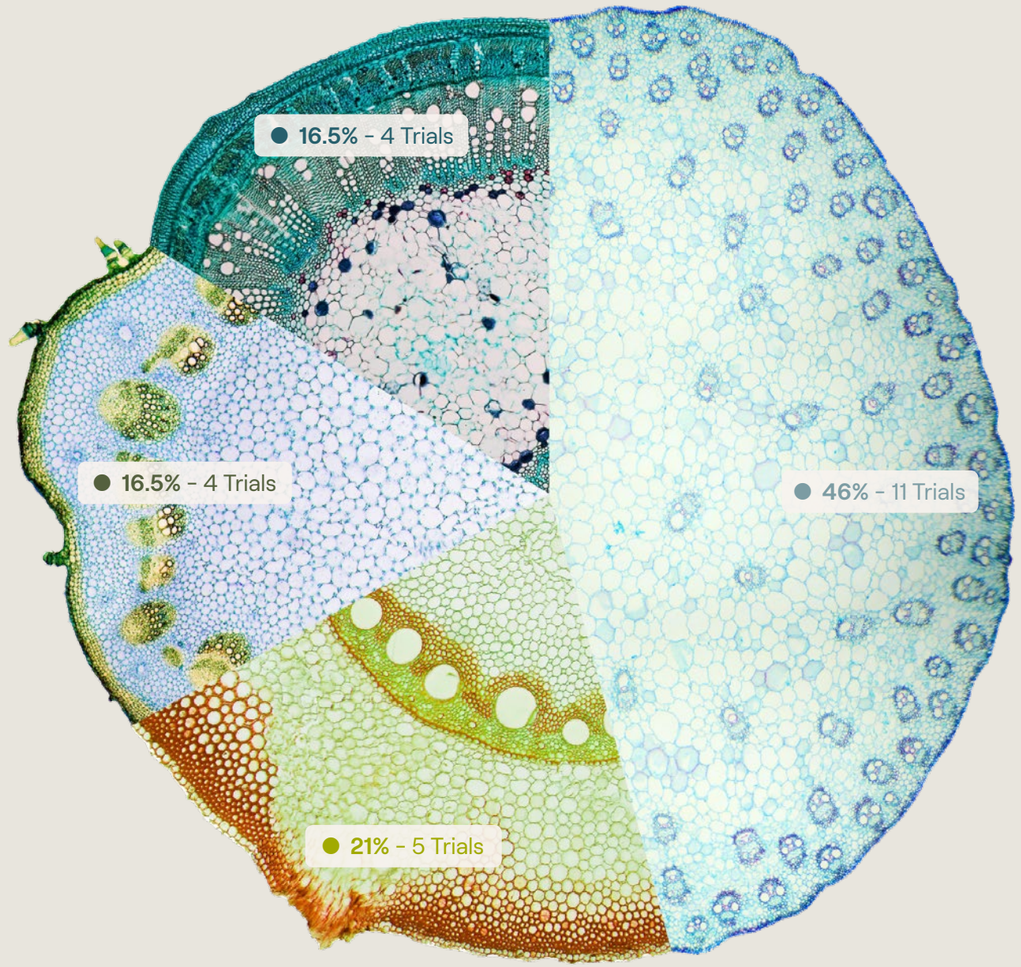
Exploring Organic Solutions
Testing an organic boron source to improve pollination in corn and alfalfa

Enhancing Pecan Production
Applying a naturally derived soil amendment to increase productivity

Sustainable Apple Farming
Utilizing CO_2-enriched water as a sustainable alternative to chemical treatments for calcium deposits on apples

Precision Irrigation
Evaluating a new tree sap flow monitor to refine irrigation practices

2025 Top Trials® Proposals by Category



24

Proposed Trials in Total

- Agronomy
- Plant Nutrition & Soil Fertility
- Integrated Pest Management & Biologicals
- Environmental Focus—Soil Health

Conservation Initiatives

Fallow Ground: *Water Conservation at Yuma Mesa*

In 2023, I.F. provided financing to a third-party landowner to acquire the Yuma Mesa farm, a 770–acre property historically planted with citrus and alfalfa. This farm receives water from the Colorado River, delivered under highly reliable water rights by the Yuma Mesa Irrigation & Drainage District (YMIDD).

In response to growing pressures on the Colorado River system, YMIDD partnered with the United States Bureau of Reclamation to create a compensated land fallowing program. This initiative, part of the Lower Colorado River Basin System Conservation and Efficiency Program, encourages in-District landowners to temporarily retire portions of their farmland, conserving water for all users of the Colorado River.

The Fallowing Program allows up to 50% of the Yuma Mesa farm to be temporarily fallowed, generating an estimated 5.6 acre-feet of water annually. Originally planned to run from 2023–2025, the program has since been extended through 2026, reflecting its vital role in safeguarding the future health of the Colorado River and the communities that depend on it.

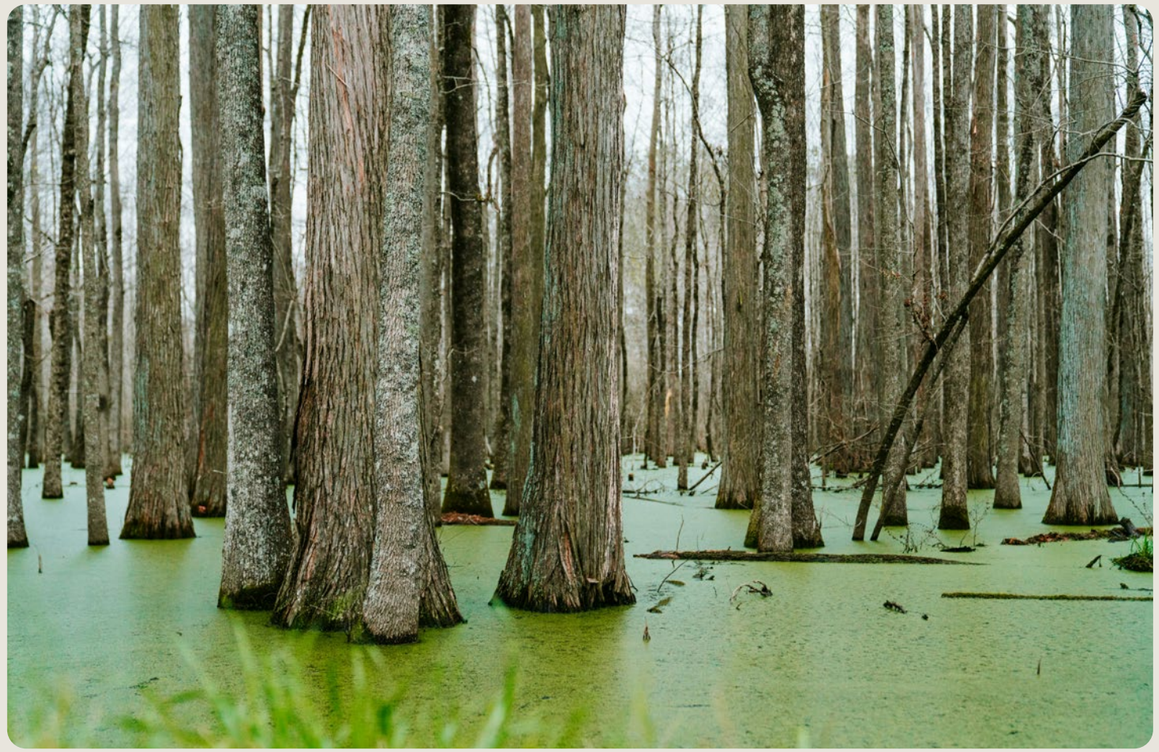
Conservation Easement: *Opportunity at Crow's Nest*

Crow's Nest Farm, spanning approximately 3,700 acres in Florida's Hendry County, was acquired by I.F. in phases throughout 2024. This investment was driven by the property's ideal location within the productive "Devil's Garden" region and its potential for conservation partnerships that protect both agricultural and habitat resources.

Under the Southwest Hendry County Sector Plan, Crow's Nest is slated to be placed under a conservation easement within five years. This plan supports residential and commercial development in the western county while prioritizing the preservation of long-term agricultural uses and natural resources in the eastern portion, where Crow's Nest is located.

Beyond its role as a productive farm, Crow's Nest is a mosaic of wetlands and wooded pockets that offer refuge to waterfowl and other wildlife. The property connects directly to the 20,895-acre Dinner Island Ranch Wildlife Management Area, strengthening critical corridors for native species. It also falls within the Florida Forever conservation program's Panther Glades Project, a 166,325-acre initiative aimed at supporting the Florida panther and other wildlife.

Ranked fifth among 25 critical natural land areas in the state as of 2024, this project highlights the region's ecological significance. I.F. is actively exploring conservation easement opportunities to align Crow's Nest's agricultural, habitat, and open space values with state and local funding priorities, ensuring the land remains both productive and protected for generations to come.



Ag-Tech Partnerships

● Looking ahead to 2025, we are excited to expand our ag-tech network while continuing to build with the companies already driving impact on the ground:

Ceres AI
Uses satellite imagery to analyze different layers of a farm, generating information on yield risk, irrigation, soil variations, and other precision farming metrics. We have worked with their platform across five different properties in the PNW.

MyLand
A "Soil as a Service" provider that develops native microalgae to boost soil health. In 2024, we collaborated with MyLand to trial algae applications on two different crop types.

Corteva
An agricultural solutions and biologicals provider that has developed an alternative, sustainable nitrogen source through the application of a nitrogen-fixing microbe that can deliver plant-available nitrogen to non-leguminous crops.

Beeflow
Specializing in almond, blueberry, and raspberry pollination, Beeflow provides pollination management services tailored to each farm.

Solena
A soil health analysis company that analyzes the soil microbiome down to the species level. We have collaborated with them to analyze optimal cover crop types for different properties.

Sarga
Develops seaweed extracts from sargassum as an alternative to synthetic fertilizers. In 2024, we partnered with Sarga to test this on alfalfa and tomato production.

Downforce Technologies
Analyzes soil carbon across agricultural supply chains to analyze end-to-end impact.

Deepening CPG Relationships

● Across the food and agriculture value chain, global consumer packaged goods (CPG) companies are rethinking how and where they source their materials. Their goal is not only to meet sustainability targets but also to secure long-term access to the resources they depend on. Water scarcity, climate volatility, and shifting regulations have made traditional sourcing models more fragile.

At I.F., we are actively deepening our relationships with leading CPGs, exploring offtake agreements, regenerative crop development, and land use strategies that strengthen surety of supply. These partnerships are grounded in shared goals: reducing environmental impact, increasing traceability, and supporting the farmers at the center of the system. Together, we are building solutions that not only meet today's demands but help shape a more resilient food future.

Desert Fiber Crop in Hyder Valley

Heading into 2025, we are excited to be a choice partner for some of the world's largest CPG companies working to develop innovative and sustainable alternatives. A powerful example of this approach is our partnership with a Fortune 200 company to develop a native desert fiber crop, designed to replace more water-intensive materials in their product line. As a native species, it is highly adapted to the region's arid conditions, using only one-third the water of crops typically grown in this climate, such as alfalfa, while reducing pesticide use by 90–95% and requiring less fertilizer. By integrating regionally-appropriate crops into commercial supply chains, we are helping institutional partners meet ambitious resource efficiency targets, while advancing land and water resilience in the West.

> In response to mounting pressure on land and water systems, many of the world's largest consumer packaged goods companies are scaling up their sustainability goals, *not as a matter of preference, but necessity.*"

Section *Seven*

Appendix

34—37

Responsible Stewardship Lease Addendums

Our mission to Leave the Land Better Than We Found It™ *extends to every lease we sign.*

● In 2024, we implemented a formal sustainability addendum for all new Core Fund leases setting the expectation for growers to follow key stewardship practices from nutrient and irrigation management to erosion control, habitat preservation, and workforce safety. These practices are based on the Leading Harvest program standards, aimed at flexibility based on the specifics of different geographies, crop types, and management systems. Some examples of responsible stewardship initiatives, as outlined in the lease addendum are as follows:

Documenting crop protection practices including scouting records, application records or invoices, and chemical application licenses or certifications.

Applying Best Management Practices (BMP's) when making crop protection applications to minimize airborne emissions or drift that could otherwise adversely affect neighboring crops, human health or the environment.

Evaluating and implementing, as appropriate, new technology, application methods or conservation practices to conserve water, protect natural habitat and ecologically important sites, preserve cultural resources and optimize crop yields.

Stewardship Metrics

100% of Our Farms & Leases

Are evaluated for crop optionality

Are evaluated for conservation programs

Have pest management programs

Have satellite imagery coverage

Have workers that are Worked Protection Standard (WPS) compliant

Have investment committee approval

Have sustainability-focused site visits

Require crop insurance (if applicable)

Have workers continuing or renewing leases

Are compliant with state and federal labor regulations

Apple Harvest
Quincy, Washington

Core Fund 2023 & 2024 Carbon Emissions

As part of our ongoing efforts to improve transparency, we currently estimate greenhouse gas (GHG) emissions based on farm-specific yield data and crop-level emissions factors. This approach allows us to report emissions consistently across our portfolio, even when certain on-farm data such as energy use, fertilizer inputs, or irrigation is not available. While some of this information is sensitive and not always shared, we are working toward a future where farm-level emissions reporting includes a more complete picture of management practices and resource use. We partner with Pinion Global to apply crop-specific emissions factors and calculate estimates based on actual production.

Year-over-year changes in emissions reflect variations in yield, total acres planted, or both. For example, the increase in alfalfa-related emissions from 2023 to 2024 was due to more acres planted and higher average yields. In the accompanying chart, we have included farm-level context to help explain changes in emissions over time.

We view this work as part of a larger commitment to responsible reporting, and each step brings us closer to a more detailed, farm-specific understanding of our carbon footprint.

Total Emissions (MT CO_2e) by Crop Type

	2023	2024
Alfalfa	1,941	4,396
Almond	577	1,360
Apple	936	724
Barley	8,256	8,541
Beans	-	890
Bermudagrass	-	25
Bluegrass	121	-
Blueberries	0.1	0.1
Canola	87	798
Cherry	33	38
Coriander	14	-
Corn	13,474	10,887
Cotton	-	37
Hazelnuts	310	500
Hemp	-	6
Lemon	-	373
Mustard	77	152
Peach	516	403
Pear	33	22
Pistachio	654	571
Potato	8,084	7,122
Rice	50,928	52,457
Ryegrass	12	-
Safflower	-	20
Sod	2,980	-
Sorghum	357	-
Soybean	6,157	6,121
Sudangrass	-	2
Sugar Beet	1,606	1,854
Sunflower	443	-
Sweet Corn	-	329
Timothy	1247	870
Tomato	4,011	4,424
Triticale	102	1,991
Vegetables	-	642
Wheat	2,664	1,766
Total	**105,621**	**107,322**

Total Emissions (MT CO_2e) by Property

	2023	2024	CHANGES IN EMISSIONS ARE A RESULT OF
Adwell	7,746	8,037	An increase in crop yields
American Falls	3,828	3,071	A decrease in the number of potato and sugar beet acres planted
Cheyenne County	2,286	-	Crops were not harvested in 2024
Cypress Lake	2,980	-	The property was sold prior to harvest in 2024
Dunklin County	25,670	29,635	An increase in the number of rice acres planted and an increase in the average yield per acre
Eltopia	1,960	3,456	A change in crops planted to more energy-intensive crops and an increase in the average potato yield per acre
Emporia	-	2,398	The property was acquired in 2024
Great Canal	4,011	4,424	An increase in the average process tomato yield per acre
Great Plains	8,789	8,490	A decrease in the average potato yield per acre and a decrease in the number of sugar beet acres planted
Hinterlands	725	554	A decrease in the average apple and cherry yields per acre
Holbrook	627	2,019	An increase in the number of potato acres planted
Idaho Falls	15,128	12,936	A decrease in the average alfalfa yield per acre and a decrease in the number of potato acres planted
Lincoln Ave	1,375	3,164	An increase in the number of triticale acres planted
Little River	29,085	26,422	A decrease in the number of rice acres planted
Luckey Ranch	452	424	A decrease in the number of alfalfa acres planted and the average alfalfa yield per acre
North Country Orchards	180	151	A decrease in the average apple and cherry yields per acre
Quincy Tree Fruit	97	79	A decrease in the average apple yield per acre
Roberts Island	373	1,162	An increase in the average almond yield per acre
Whitehead	310	500	An increase in the average hazelnut yield per acre
Yuma Mesa	-	401	The property was acquired in 2024
Total	**105,621**	**107,322**	

End Notes

Investing Responsibly

(1) Source: USDA

(2) Source: USDA ERS

(3) Source: American Farm Bureau Federation

(4) Source: USDA

Leaving the Land Better Than We Found It™

(5) Source: Penn State Extension

(6) Sources: Penn State Extension, Natural Resources Defense Council

(7) Source: Natural Resources Defense Council

(8) Source: U.S. Geological Survey

(9) Source: National Integrated Drought Information System

(10) Source: Nature

(11) Source: World Wildlife Fund

(12) Source: FDA

(13) Source: Honey Bee Health Coalition

(14) Source: Honey Bee Health Coalition

Important Disclosures

Information presented in this document is as of 06/26/25. There is no guarantee that any of the key metrics included in this presentation will predict future performance of any investment fund or account managed by IFC Core Investment Management, LLC ("IFC Core") or IFC Investment Management, LLC ("IFC IM" and collectively, and inclusive of any affiliates, "I.F."). This is not a solicitation to buy or sell securities. There is no guarantee that any of the projections included herein will occur.

This presentation and the information contained herein (collectively, the "Information") is strictly confidential and intended exclusively for the use of the investment professional to whom it was delivered or made accessible by I.F. The Information may not be reproduced or redistributed, in whole or in part, or used to create a derivative work.

IFC Core is an independent investment adviser registered with the Securities and Exchange Commission ("SEC") under the Investment Advisers Act of 1940, as amended. Registration does not imply a certain level of skill or training. More information about the advisor, including full descriptions of its investment strategies and objectives, can be found in the firm's Form ADV Part 2, which is available upon request by calling (252) 523-0800 and can also be accessed online at https://adviserinfo.sec.gov/. IFC Investment Management, LLC, an affiliate of IFC Core, is registered with the SEC as a related adviser to IFC Core, and is under common control and ownership with IFC Core.

This presentation reflects data and information available as of the time it was written, and all such data and information are subject to update and revision. No representation or warranty, express or implied, is given by us as to the accuracy of such data and information and no liability is accepted by such persons for the accuracy or completeness of any such data or information. Although the statements of fact and data have been obtained from, and are based upon, sources that we believe to be reliable, we do not guarantee accuracy, and any such information may be incomplete, inaccurate, or condensed, even materially so.

Certain information contained in this communication constitute "forward-looking statements" which can be identified by the use of forward-looking terminology such as "may," "will," "expect," "anticipate," "project," "estimate," "intend," or "believe" or the negatives thereof or other variations thereon or comparable technology. Due to market risk and uncertainties, actual events or results or the actual performance of the account may differ materially from those reflected or contemplated in such forward-looking statements.