



ESG

COVERING FISCAL YEAR 2023

REPORT

BENSON  HILL®

Message From Our CEO

The soybean is a powerhouse, essential for nourishing and energizing our planet today and tomorrow. However, for decades, the soy commodity system has prioritized quantity over quality,¹ resulting in more calories but less nutrition.² At Benson Hill, we believe that better feed, food, and fuel start with better seeds.

Soybean meal is a crucial component of our agri-food system, providing essential protein and nutrients in animal diets. Yet, animal agriculture significantly impacts our climate, contributing up to 12% of human-caused global carbon dioxide emissions, according to the United Nations' Food and Agriculture Organization (FAO).³ Despite this, global demand for animal protein continues to rise, with more than 90% of U.S.-grown soybeans used in animal feed applications.⁴

To address these challenges, we must improve the sustainability of soy production. This is where seed innovation plays a crucial role. Benson Hill's proprietary Ultra-High Protein varieties already outperform commodity soy today, delivering up to 20% higher protein content and lower anti-nutrients. This leads to improved efficiency and sustainability benefits throughout the food value chain.

Animal feed markets represent some of the world's largest but least differentiated markets in soy protein. Our ability to differentiate our seed innovations for feed provides significant value creation opportunities, both now and in the future, as we optimize protein and yield. Higher oil content and the potential for better fuel are also in our innovation pipeline, opening further market opportunities. Our advanced plant breeding platform, powered by our CropOS® technology platform and Crop Accelerator facility, ultimately positions Benson Hill to deliver soy quality traits for specific end uses, including feed, food and the emerging biofuels market.

As we transition from an asset-heavy, closed-loop model to an asset-light model based on licensing and partnerships, we focus on scaling our operations through strategic partnerships across the value chain. These partnerships allow us to leverage existing infrastructure more efficiently while maintaining our commitment to environmental, social, and governance (ESG) principles.

Throughout this transition, authenticity is at the center of how we conduct business. We are proud of our highly talented team, diverse partnerships, and commitment to transparency. Collaboration will continue to be paramount as we work towards our shared goals of sustainability and innovation.

In 2023, we spent time assessing our strengths, validating our pipeline, and reshaping our path forward. While we see the promise of plant-based nutrition in the future, expanding into animal feed as a strategic priority allows us to pursue broadacre adoption. As our priorities shift, our ESG framework still guides how we work.

Benson Hill has designed a system to provide both a choice and a voice to the end user. Future seed decisions can be driven not simply by what input traits the farmer prefers, but by what output traits the end user demands. This unlocks a new dimension of growth for those who are positioned to be part of it.

We are excited to realize the positive results these business changes will bring, and we look forward to delivering ongoing seed innovation that unlocks potential, generates value, and improves our environmental performance.



Deanie Elsner
Chief Executive Officer

1.) [USDA Crop Production Historical Track Record 2023](#) 2.) [2023 US Soybean Quality Report](#)
3.) [Food and Agriculture Organization of the United Nations. \(2023\). New FAO report maps pathways towards lower livestock emissions.](#) 4.) [American Soybean Association.](#)

2023 Mockler Innovator Award

In late 2023, Benson Hill selected its second annual Mockler Innovator Award recipient: Bob Koester, Director of Breeding and Trait Introgression at Benson Hill. Created in January 2023 to honor the company's late co-founder Todd Mockler, PhD, the Mockler Innovator Award honors a technology leader who has made substantial contributions to Benson Hill through creative problem-solving, scientific excellence, and an entrepreneurial mindset.

Throughout his 7-plus years at Benson Hill, Koester has consistently shown a commitment to deepening his scientific knowledge and technology in agriculture. Koester started as a crop physiologist in the corn program at Benson Hill. He rapidly expanded his impact and responsibilities and today oversees the company's Breeding and Trait Introgression teams, which are at the heart of Benson Hill's mission to leverage genomics to create better feed and better food. His recent redesign and optimization of the company's soybean breeding and trait integration program using predictive analytics resulted in accelerated product development, improved risk profiles, and greater efficiencies.



1970 - 2023

Todd Mockler, Ph.D.
Co-founder of Benson Hill

"It is an incredible honor to receive this award, which is steeped in the identity of Benson Hill," said Koester. "I always admired how Todd was able to translate his innovations in plant science into real-world business applications. It's that application of science to solve problems that motivates me to do what I do."

2023 MOCKLER INNOVATOR
AWARD RECIPIENT

Bob Koester
Director of Breeding and
Trait Introgression



Current State of Soy in the Global Context of Climate Change

Achieving Zero Hunger, the United Nations' Sustainable Development Goal No. 2, without breaching the 1.5° C threshold is not only possible but also necessary.

And the global focus on agriculture's impact on climate change continues to increase year over year. At the 28th Conference of the Parties (COP28) in Dubai, there were major announcements recognizing adverse climate-related impacts on food systems and the vital importance of nutrition security for all. Among these announcements, the UN Food and Agriculture Organization (FAO) released a [net-zero food plan roadmap](#) to preserve the climate goal set in the Paris Agreement.

The FAO's roadmap, with its 10 domains of action, encompasses work across the food value chain, from clean energy and livestock to food loss and healthy diets. Acceleration of innovation to create healthy soils and increase productivity of lands is also called out as a necessary part of this transformation. Experts agree that healthy soil increases carbon capture and leads to increased productivity for meeting the nutritional needs of the global population, without harming the environment.

At Benson Hill, our focus on seed innovation has led to more nutrient-dense, higher-protein soybeans. Our Ultra-High Protein (UHP) soybeans provide more protein per acre, which results in less pressure on the land, less pressure on water, and lower carbon intensity per unit of protein. UHP represents the benefits of seed innovation, demonstrating improved resource use efficiency over commodity beans.

It's not just protein that Benson Hill is continuously working to improve, but also other quality traits such as oil content, amino acids and biofuel profiles. This increased productivity across multiple soy quality traits is needed as we strive for the 1.5° C goal – we cannot sacrifice quality for the sake of quantity, especially as we innovate. In the years to come, we expect that our soybean protein per acre will continue to increase, a significant improvement to overall quality than yields alone. In turn, more protein per acre can deliver ESG and nutritional benefits to end markets such as animal feed, aquaculture and human food applications, contributing to overall nutrition security.



AGRICULTURE'S CONTRIBUTION
OF GLOBAL EMISSIONS
IN 2019

GLOBAL AVERAGE SURFACE TEMPERATURE **HAS INCREASED ROUGHLY 1° C**

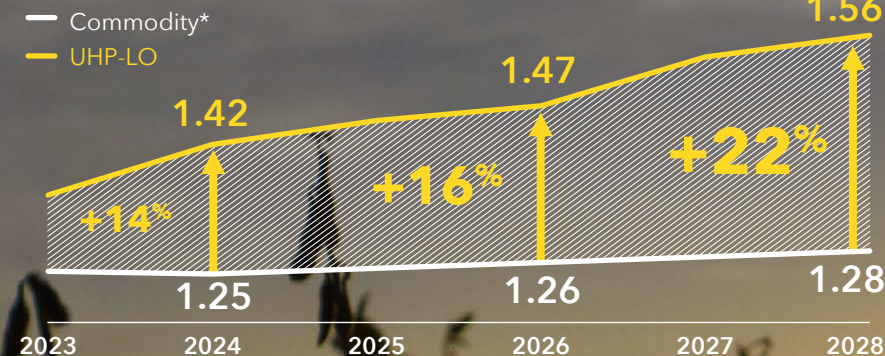
since the pre-industrial era;
Paris Agreement looks to keep avg temp increases below 1.5° Celsius

GROWTH OF TOTAL FACTOR PRODUCTIVITY, 2011-2021

1.14%
ANNUALLY

NEEDS TO BE **1.91%** AVG ANNUAL GROWTH TO MEET NEEDS OF 2050 POPULATION

PROTEIN (TONS) / ACRE *Illustrative example for UHP-LO*



* Assumes 0.6% yield improvement per annum

Source: Product performance and pipeline forecast data 2022-2028 accounting for both protein content and agronomic yield

More Protein Per Acre =

- ✓ Lower Carbon Intensity
- ✓ Less Pressure on Land
- ✓ Less Pressure on Water and Inputs

About This Report

Benson Hill is proud to publish our third ESG report, which quantifies our ongoing commitment to transparency. Our management team believes the publication of these metrics can open dialogue with stakeholders by providing broader, nonfinancial context regarding our business operations and the impact of our products in the global food ecosystem. This report was published in July 2024.

Unless otherwise noted, data provided in this report covers initiatives and performance metrics associated with Benson Hill's operated or financially owned assets from January 1 through December 31, 2023, except for divested soy processing plants in Creston, Iowa, and Seymour, Indiana.

Data included in the report has not been reviewed or audited by a third party, unless otherwise noted. Specific details on our financial performance can be found on our corporate website and in our public filings available through the U.S. Securities and Exchange Commission.

FORWARD-LOOKING STATEMENTS

Certain statements in this report may be considered "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements generally relate to future events or the Company's future financial or operating performance and may be identified by words such as "may," "should," "expect," "intend," "will," "estimate," "anticipate," "believe," "predict," or similar words. These forward-looking statements are based upon assumptions made by the Company as of the date hereof and are subject to risks, uncertainties, and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These forward-looking statements include, among other things, statements regarding the anticipated benefits of the Company's sustainability and ESG initiatives, statements regarding the anticipated ESG impact of the Company's products, statements regarding the Company's strategy and plans for growth, statements regarding the expected future performance of and demand for the Company's products, technologies, statements regarding the Company's transition to an asset-light business model to serve broadacre animal feed markets, statements regarding the Company's ability to develop and commercialize its product pipeline, statements regarding product release timing, statements regarding strategic partnership and licensing opportunities, statements regarding the Company's ability to realize anticipated benefits from relationships with third parties, statements regarding expectations about the markets in which the Company participates, statements regarding the Company's ability to attract, train and retain key personnel, statements regarding the Company's investment plans, statements regarding the Company's voluntary public disclosure of greenhouse gas emissions information, and statements regarding the Company's competitive positioning, resources, capabilities, and expectations for future performance. Factors that may cause actual results to differ materially from current expectations include, but are not limited to, risks associated with the Company's ability to execute on its business strategy, including its transition to an asset-light business model to serve broadacre animal feed markets, risks relating to the Company's ability to continue as a going concern, risks associated with the failure to realize the anticipated commercial and nutritional benefits of the Company's products, product candidates and innovation pipeline, risks associated with the accuracy and repeatability of feeding trials, risks associated with the Company's ability to achieve its sustainability and ESG goals, risks associated with the Company's ability to grow and achieve growth profitably including continued access to the capital resources necessary for growth, risks associated with the Company's cost-cutting measures under its expanded Liquidity Improvement Plan and other cost saving measures, including potentially adverse impacts on the Company's business and prospects even if such plans are successful, risks associated with the Company's ability to maintain relationships with its customers, suppliers and strategic partners, risks associated with changing industry conditions and consumer preferences, risks associated with the Company's ability to retain key personnel, risks associated with global and regional economic, agricultural, financial and commodities market, political, social and health conditions, the effectiveness of the Company's risk management strategies, and other risks and uncertainties set forth in the sections entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" in the Company's filings with the SEC, which are available on the SEC's website at www.sec.gov. Nothing in this report should be regarded as a representation by any person that the forward-looking statements included in this report will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. There may be additional risks about which the Company is presently unaware or that the Company currently believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. The reader should not place undue reliance on forward-looking statements, which speak only as of the date they are made. The Company expressly disclaims any duty to update these forward-looking statements, except as otherwise required by law.

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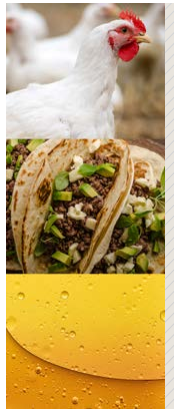
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OUR COMPANY

Benson Hill's approach to seed innovation is unique. We focus on soy quality traits like protein and oil content to address the demand of the end user and generate value across the agribusiness supply chain. Addressing that end-user demand is possible because of the depth of our soy database. Our technology and intellectual property include all the components necessary for rapid seed innovation for soy. With our technology platform and focus on soy quality traits, we can innovate faster, get to market faster, and minimize risk in the field.

Transformation of Benson Hill

The transformation to an asset-light model allows Benson Hill to move beyond food markets into broadacre opportunities in feed and fuel, bringing ESG benefits to more acres

2023 KEY MILESTONES

In 2023 Benson Hill achieved several business milestones that propelled us forward:

- Improved guidance three times, reflecting our team's focus on execution and financial discipline;
- Hosted a successful Investor Day in March, highlighting our vision and progress to shareholders and stakeholders;
- Solidified our position in the soy industry through key partnerships, including:
 - A strategic collaboration with Denmark-based BioMar to leverage Benson Hill soy and further assess its sustainability impact on high-performance aquafeed formulations as part of a commitment to build restorative soy supply chains; and
 - A commercial license agreement with Corteva Agriscience and M.S. Technologies L.L.C. for Enlist E3® soybean technology.

The second half of 2023 saw significant business changes, made with the aim of strengthening our balance sheet and positioning Benson Hill for the incredible opportunities ahead of us. This included a three-part plan:

- 1 Implemented our **cost-cutting initiatives** under the expanded liquidity improvement plan
- 2 **Diversified our portfolio** to enter attractive soy segments
- 3 Delivered **strategic partnerships** to execute our asset-light strategy

	JUNE 2023	Q3 2023	Q4 2023	Q1 2024
<div> <div> Announced CEO Transition </div> <div> STRENGTHEN BALANCE SHEET </div> <div> ESTABLISH BUSINESS MODEL </div> <div> BUILD PARTNERSHIPS </div> </div>	<div> Announced CEO Transition </div>	<div> Built Liquidity Improvement Plan </div>	<div> Divested Seymour Plant </div> <div> Sold Tech Asset, Paid Down Debt </div> <div> Reshaped Organization </div> <div> Delivered OPEX/Capex Reductions </div>	<div> Closed Creston Divestiture </div> <div> Retired Debt </div> <div> Announced CFO Transition </div>
	<div> Identified Pipeline Animal Feed Opportunity </div>	<div> Validated Animal Feed Opportunity </div>	<div> Framed New Business Model </div> <div> Third-Party Validation New Business Model </div> <div> Finalized Capital Model </div>	
		<div> Engaged External Animal Nutrition Experts </div>	<div> Identified Seed Co. & End-User Targets </div> <div> Initiated Partnership Discussions </div> <div> Planned Animal Feed Study </div>	<div> Launched Animal Feed Study </div> <div> Advanced Partnership Discussions </div>

Benson Hill's Competitive Advantage

Since 2012, Benson Hill has dared to imagine a Made from Better™ soybean that would benefit everyone in the food value chain.

Purpose: Better Feed. Better Food. Better Fuel.

Vision: To meet the global demand for more nutritious, sustainable and energy-dense feed, food, and fuel through seed innovation.

Mission: To lead the pace of innovation in soy quality traits with AI-driven seed advancements, proprietary genetics, and rapid prototyping.

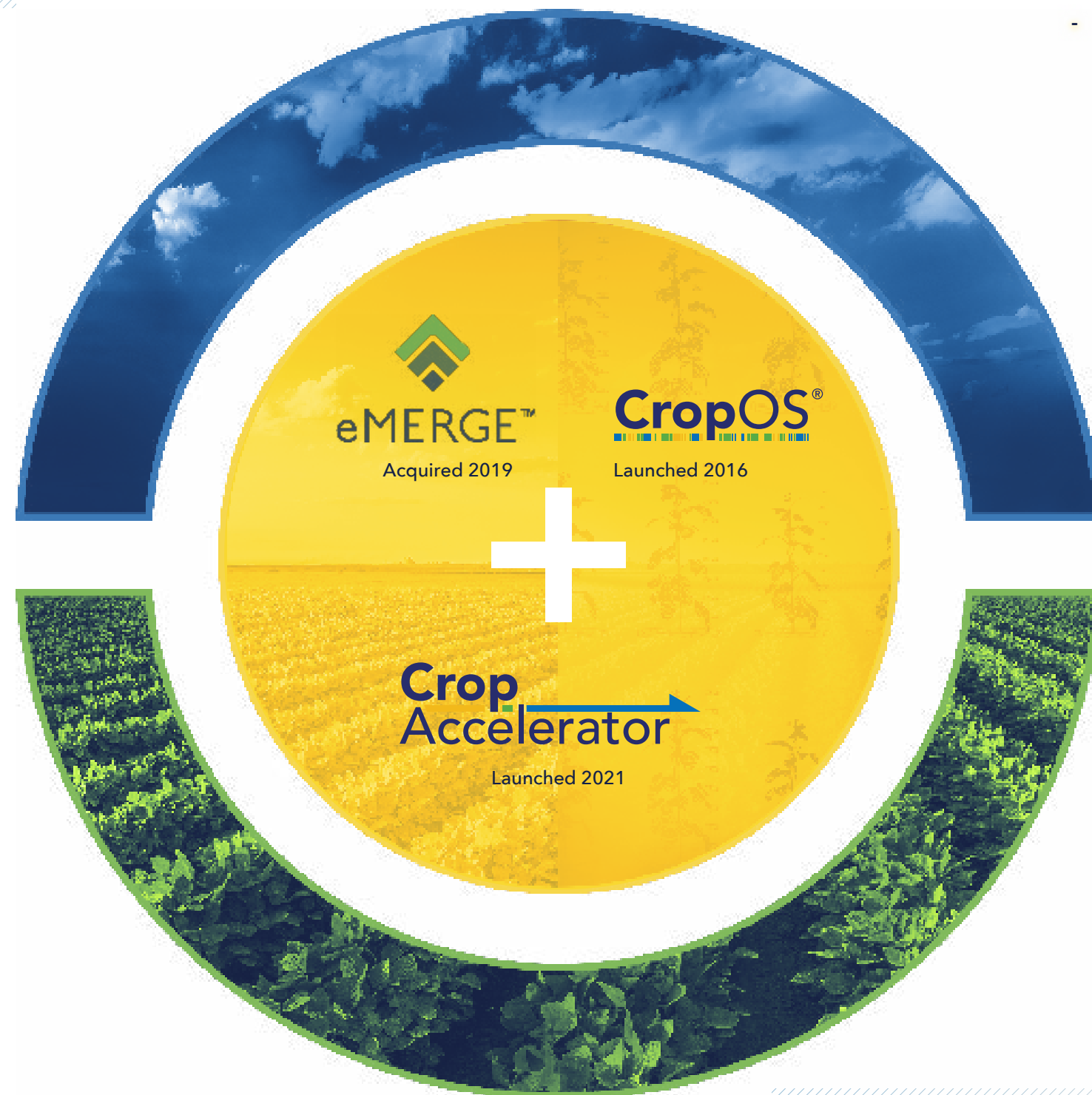
OUR UNIQUE CAPABILITIES:

No other seed innovation company has the focus on quality traits, its own advantaged proprietary genetics, an AI-driven technology platform, a speed breeding facility, and the ability to focus on creating impact across end markets for feed, food, and fuel.

Driving seed advancement through technology | Using proprietary data and insights to drive predictions, Benson Hill launched our CropOS® technology platform in 2016 to build a foundation in Artificial Intelligence (AI) and Machine Learning (ML). Genomic sequencing technology made the integration and digitization of proprietary germplasm possible, leading us to develop a plant breeding platform that encompasses digital twin simulations and in-silico breeding predictions.

Leveraging world-leading proprietary germplasm | In pursuit of a rich germplasm base and robust field data to supercharge our predictive breeding efforts, Benson Hill placed a big bet and acquired Schillinger Genetics' extensive eMERGE® germplasm database in 2019. We now hold insights and data points on more than 20 years of proprietary, non-GMO soybeans with superior protein content, quality oil, and low anti-nutrient attributes—all with competitive yields.

Delivering more accurate results, faster | With the strategic data layers mapped on top of our soy genetics, we set out to push the limits of biology. In 2021, Benson Hill opened the Crop Accelerator, an indoor speed breeding and rapid prototyping facility that manifests the CropOS® breeding roadmaps into living plants. We designed the best, most carefully controlled environment to deliver the seed innovations of the future.



Our Core Values

We are committed to a culture that encourages continuous growth and firmly believe that the inclusion of people and ideas inspires the greatest innovation. Our values aren't words on a wall, but a compass for our culture. We are driven by three Core Values that are fundamental to our company's identity:



Be Bold:

We redefine boundaries by providing new solutions to difficult problems. Together we are driven to transform the future and will not allow the fear of failure to prevent us from innovating. We voice our opinions, embrace change and challenge each other to think creatively, work effectively, and manage risk appropriately.



Be Inspired:

We have purpose in our work—we are curious, engaged and have fun. We maintain an active growth mindset and are motivated by diverse people and thoughts. We are energized by all innovators, and together we aim to make an impact and contribute to building a better world.



Be Real:

We are a performance driven organization and hold each other accountable to deliver results through timely, candid, and well-intentioned feedback. We prioritize trust and integrity in all of our activities, both internally and with our customers. Together we engage in honest communication and healthy debate that leads to success through true alignment.

CORE VALUE AWARD SPOTLIGHT

Each quarter we recognize team members who live and promote our core values every day.



Be Bold!

Hannah Potter,
Research Associate II

Hannah's impact is undeniable as she collaborates with leaders and teams to drive decisions, define achievable outcomes, and link plans to reality. Her pivotal role in enhancing meetings' quality in the GE phenotyping space reflects her invaluable contributions. Hannah consistently offers ideas and strategies for complex issues in the GE pipeline and stands as a dedicated champion and trailblazer in implementing the CropWorks system.



Be Real!

Clint Heimann,
Manager, R&D Operations

Clint's unwavering dedication and problem-solving prowess shined in the planting season, steering critical projects to success. Amidst hurdles like low germination rates, he skillfully collaborated with teams, showcasing proactive adaptability. Clint's remarkable approach solidifies him as a leader and team member at Benson Hill.

Our Governance Structure

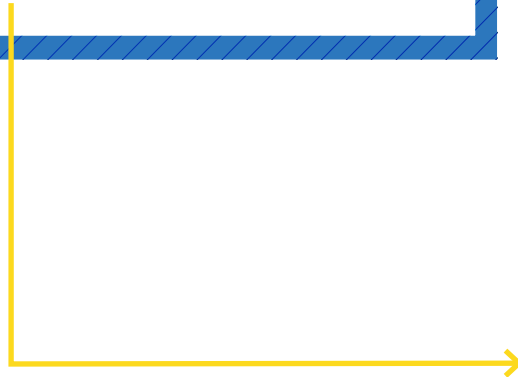
BOARD OF DIRECTORS (BOD)

At Benson Hill®, our Board of Directors comprises nine individuals with diverse expertise spanning the agri-food, technology, and financial sectors. Responsible for supervising our ESG (Environmental, Social, and Governance) risk and impact, the Board delegates oversight authority to its committees, benefiting from the extensive ESG experience of several directors. Further details about our Board of Directors can be found in our Proxy Statement.

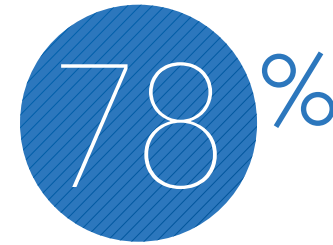


SUSTAINABILITY AND GOVERNANCE COMMITTEE (SGC), BOD

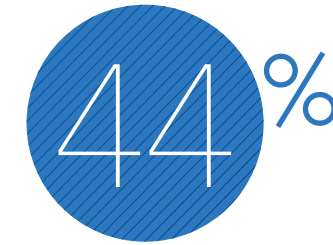
During quarterly SGC meetings, the committee reviews company objectives, goals, strategies and activities related to corporate governance, environmental and social capital policies and initiatives, among other duties. The committee also considers sustainability and climate-related topics as part of its oversight as delegated by the BOD. The SGC operates under a written charter, under applicable SEC rules and NYSE listing standards.



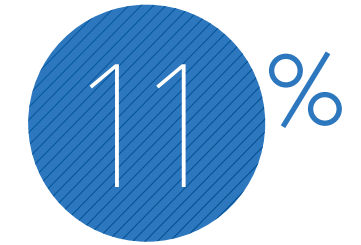
BOARD OF DIRECTORS DIVERSITY



INDEPENDENT¹



WOMEN²



DIVERSE²

SCIENTIFIC ADVISORY BOARD (SAB)

The SAB at Benson Hill consists of renowned interdisciplinary experts who offer external scientific evaluation and strategic counsel on the company's research and product development endeavors. It contributes to the assessment of technical strategies, project plans, technology, intellectual property, experimental designs, data, and resources pertinent to executing scientific initiatives.

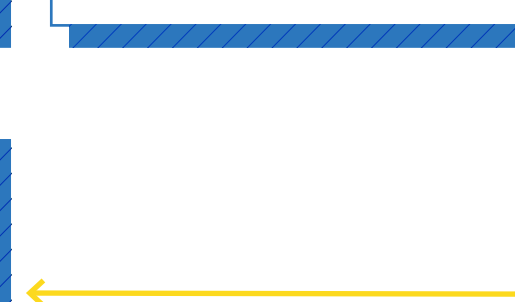


MANAGEMENT OF ESG AND SUSTAINABILITY

Our Director of ESG & Sustainability works under the guidance of the Chief Transformation Officer, both of whom interact regularly with the SGC and BOD. The Director is responsible for all ESG-related activities and stakeholder engagement across the company, including advancing climate and sustainability strategy and working cross-functionally on the quantification of environmental, social impact and corporate governance efforts.

SUSTAINABLE FOOD ADVISORY COUNCIL (SFAC)

Our SFAC convenes experts and thought leaders from diverse sectors, including NGOs, academia, and the private sector, to gather external stakeholder perspectives on environmental and societal challenges. This ongoing dialogue serves to both supplement and test Benson Hill's internal strategy through active stakeholder engagement. Additionally, the SFAC provides guidance and recommendations to both the SGC (Stakeholder Governance Committee) and our Executive Leadership Team.



Our Policies and Charters

Our Policies

We understand the importance of consistently operating ethically to earn stakeholders' trust. Our strong governance is backed by key policies and procedures that embody our purpose and core values. Fostering a rich and welcoming work environment allows our team members to flourish. We seek continuous improvement, updating our policies, guidelines and charters with input from cross-functional teams and executive leadership.

BOD Committee Charters:

[Audit and Risk Committee Charter](#)
[Sustainability and Governance Committee Charter](#)
[Compensation Committee Charter](#)

Policies:

[Code of Conduct and Ethics](#)
[Corporate Governance Guidelines](#)
[Whistleblower Policy](#)
[Information Security Policy](#)
[Insider Trading Policy](#)
[Environmental Policy](#)
[Emerging Technology Policy](#)
[Food Safety Quality Policy](#)
[Foreign Corrupt Practices Act Policy](#)
[Statement on Cybersecurity](#)

ESG Framework

We Nourish Innovation™ through an emphasis on quality without compromising quantity. We consider how we can, with our stakeholders and partners, produce nutritionally rich, more sustainable feed and food while advancing economic viability, natural resource restoration, and climate impact mitigation. To us, this exemplifies sustainability.

Our ESG strategic framework serves as the guiding principle for our decision-making, enabling us to prioritize matters important to our customers, shareholders, stakeholders, and farmers. Through this framework, we gauge the sustainable and ethical impact of our products, and where possible, translate that into value for our customers. Our governance oversight and transparency processes continue to evolve in tandem with our changing business model and industry expectations. Collaborating with forward-thinking partners, we strive to ignite change through innovation. This framework directs us as we harness technology to meet the growing demand for more nutritious and sustainable feed, food, and fuel.

ENVIRONMENTAL: our company's understanding of risk from extreme weather, a changing climate and natural resource management; also measures our impact on the environment from our innovation and how we deliver value to our customers.

SOCIAL: the areas of human capital and our internal culture, as well as the risk and impact we have on social capital with the health of our communities and consumer nutrition.

GOVERNANCE: considers our company's ability to meet regulatory requirements and hold ourselves accountable to run a successful business and establish a strong foundation to achieve our mission and vision.

Memberships and Engagement

We consider collaboration essential for achieving our goals. Throughout 2023, we actively engaged with industry groups and associations, nurturing both new and existing partnerships to drive innovation forward. Within an ever-growing community of forward-thinkers dedicated to improving soy, we are excited to work alongside like-minded peers who are aligned with our vision and share our passion.

MEMBERSHIPS

REGIONAL ENGAGEMENT

									
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OUR TECHNOLOGY

"Biotechnology is an essential climate mitigation tool. Biotech has already delivered vital climate solutions and holds the potential to provide transformative climate technologies across a broad spectrum of industrial sectors. Biotech solutions have the potential to reduce agriculture sector GHG emissions by nearly 1 billion metric tons (1 gigaton) annually - or the equivalent of GHG emissions from more than 100 million U.S. homes."

BioTech Solutions
for Climate Report



Our Approach to Seed Innovation

LEADING AI-DRIVEN SEED INNOVATION

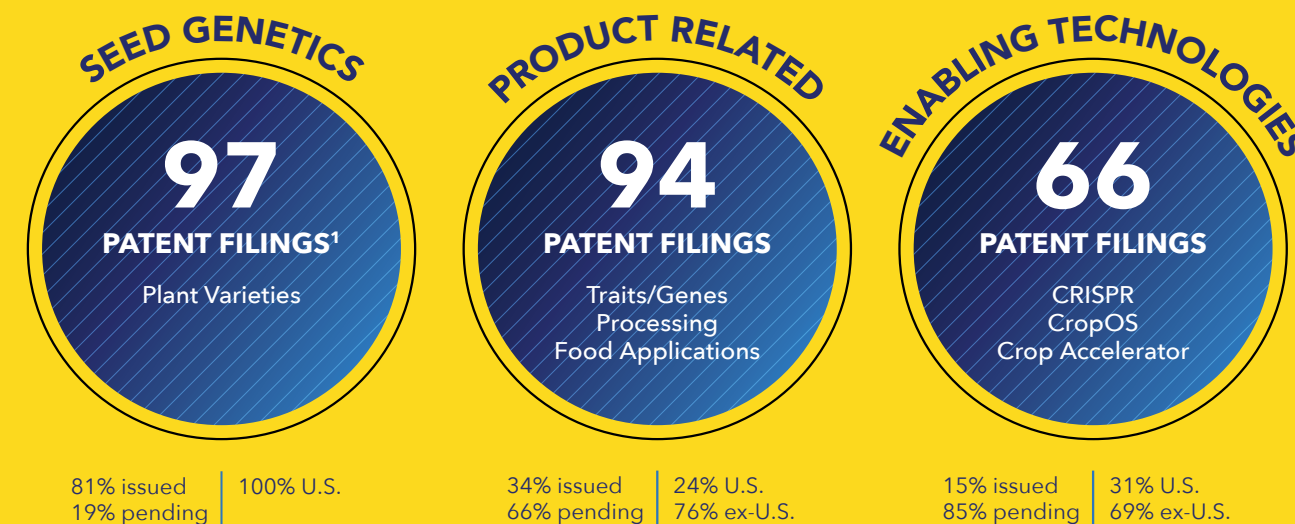
Navigating the pressures on our feed and food system requires innovation. Technology is an essential enabler as innovation cycles in feed and food are not measured in weeks or months; they're measured in years.

We are developing products leveraging our CropOS® technology platform through a three-step, iterative "Design, Build, Test" process that improves in precision and intelligence with each innovation cycle. The key inputs to our approach are twofold. The first is an unparalleled data library comprising genotypic, phenotypic, and agronomic data on our crops, consumer insight data on our ingredients, and environmental data on our growing sites. The second is a robust machine learning capability, which leverages our data library to design before we build. We believe this combination of relevant data and advanced simulation helps us get our products to market more efficiently, faster, and on timelines that can more effectively respond to evolving end market needs.



INTELLECTUAL PROPERTY AT BENSON HILL

Developing better feed, ingredients and oil products depends on the data and insights of the end user. The ability to parallelize product development with ingredient specifications and on-farm feedback is unique in our siloed food system. How we monetize our seed innovations depends on reducing risk as we launch new products. Intellectual property protection gives us more control of when, how, and how quickly we can act on novel discoveries. As we further develop proprietary seed varieties, securing our intellectual property will continue to be an area of significant investment for us, and the number of patent applications will expand.



1.) Depending on the complexity of the quality trait stack.

Design, Build, Test

DESIGN

In our Design step, CropOS® employs a diverse array of simulations and predictions to execute the most efficient and cost-effective path to novel product development. The platform can consider billions of data points in millions of pipeline configurations to identify the starting parental plant breeding combinations, predict gene targets, and analyze optimal farm management and environmental conditions. These state-of-the-art platform capabilities and enabling technologies allow us to assess the probability of success early in the research and development process, focusing resources and avoiding potentially expensive late-stage failures. In turn, this allows for a larger breadth of products to be designed.

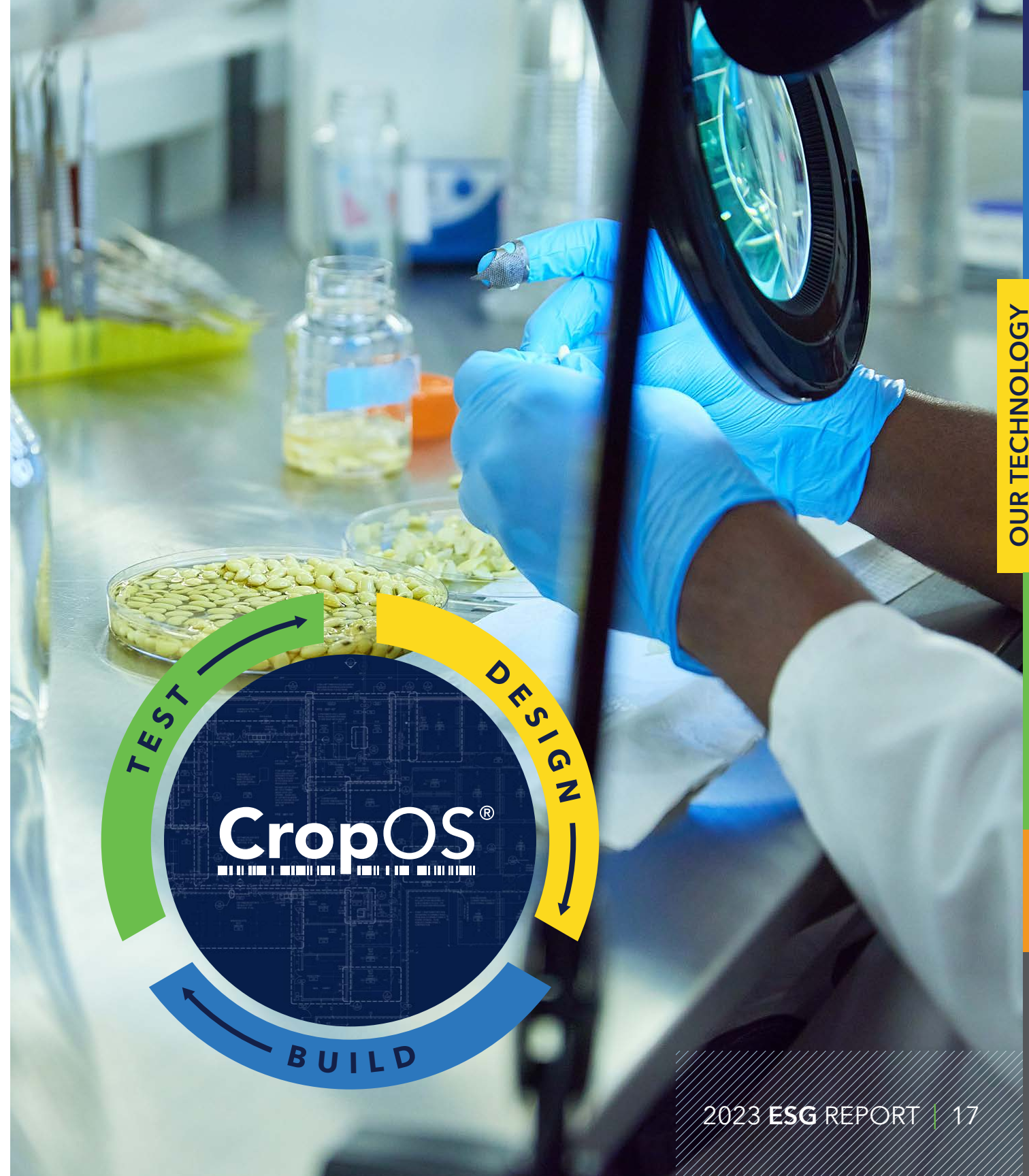
BUILD

Once an optimal path is identified, we enter our Build step. In this stage of our development process, candidate products are created through predictive breeding and gene editing. Our proprietary suite of gene editing technologies and intellectual property portfolio enable us to edit the plant's own genome predictably and precisely, which we consider an advanced form of seed breeding. We can leverage our knowledge of plant gene functions to unlock and restore lost or muted genetic variation that is within the natural diversity of the plant or knock out genes that are unwanted. This approach is distinguished from transgenic, or "GMO" technology, in that we are advancing natural genetic variation that could be achieved using traditional breeding approaches rather than introducing genes foreign to the species.

Through our Crop Accelerator, opened in October 2021, the Build step of our process is sped up within our controlled environment, indoor product development facility. This 47,000-square-foot facility features dynamically adaptive Conviron® growth houses and chambers, equipped with sophisticated sensor and environmental controls, including multi-channel LEDs, imaging capabilities, additive carbon dioxide, and temperature, humidity, and lighting controls. The Crop Accelerator enables rapid testing and target candidate selection over multiple growth cycles. Insights and data points gathered during each growing cycle further enhance the predictive capabilities of the CropOS platform. We believe this cycle of feedback will accelerate our ability to develop new offerings, including continued expansion of our proprietary portfolio of soy ingredients.

TEST

After a potential commercial seed variety is built, it then enters our Test step where it is evaluated within our network (comprised of internal and third-party sites and capabilities) of hundreds of field-level testing research and production sites. We believe our predictive optimization capabilities have the potential to maximize the return on our genetics by using proprietary placement models, which are built on environmental and performance data to predict where to contract acres to lift protein content. We then use digital agriculture technology to collect on-farm data through our grower data partnership program and other relationships to enhance the CropOS platform, further feeding our data flywheel.





Five Innovation Platforms

Delivering more quality per acre creates a greater opportunity for environmental impact across the value chain. Benson Hill’s technology team has developed five innovation platforms designed to drive growth across multiple market segments. Ultra-High Protein (UHP) soybean and yellow pea are the flagship technologies on which we can add other quality traits and next-generation improvements. We sell UHP varieties in various consumer package goods categories with soy flake, flour and texturized flour. In addition, our Ultra-High Protein, Low Oligosaccharide (UHP-LO) soybean offers low anti-nutritional benefits ideally suited for the animal feed market.

Our technology advantage also extends into heart-healthy oil offerings and tackling the complex task of combining these value-added traits into a single soybean, where we derive the benefits of the meal and oil on the same acre and in one crush process. And there’s much more to come.

We have a robust pipeline of improvements planned over the next several years. This innovation includes next-generation traits and higher protein content and improved anti-nutritional benefits. More importantly, we expect to release our first UHP seed varieties in 2025 with herbicide tolerance – a key stage gate for us to give farmers better weed control. That sets the stage for herbicide tolerance in our UHP-LO varieties for animal feed going forward.

	 SOYBEAN				 YELLOW PEA
PRODUCT CATEGORY	UHP	UHP-LO (low oligosaccharide)	HOLL	COVAL	HP
CHARACTERISTICS	Ultra-High Protein	Increased Protein Lower Anti-Nutrients Improved Amino Acids	High Oleic Low Linoleic Low Linolenic	Lower Anti-Nutrients High Oleic Low Linoleic Low Linolenic	Increased Protein
END MARKETS	Consumer Package Goods	Animal Feed Consumer Package Goods	Consumer Package Goods Food Services	Consumer Package Goods Food Services Animal Feed	Pet Food Consumer Package Goods
CUSTOMER VALUE PROPOSITION	✓ Improved Nutrition ✓ Cleaner Label ✓ Reduced Cost (Processing Yield Improvement)	✓ Improved Digestibility, Higher Energy Diet, More Complete Amino Acid Profile ✓ Same as UHP	✓ Heart-Healthy Oil and Functional Benefits (Oil Stability)	✓ Heart-Healthy Oil and Functional Benefits (Oil Stability)	✓ Improved Nutrition ✓ Cleaner Label ✓ Reduced Cost (Processing Yield Improvement)



OUR FARMERS

"Efficient land, water and energy use from U.S. soybean farmers across the country reduce greenhouse gas emissions and increase soil health. In fact, soybean farmers have improved energy use efficiency by 46% and reduced greenhouse gas emissions per bushel by 43%. These sustainable practices help better our world while keeping food on tables."

[How U.S. Soy Farmers
Innovate for the Future
of Farming](#)

US SOY

Partnership on the Field

Farmers are the cornerstone of our food system, providing vital sustenance to a constantly growing global population. Benson Hill has found great value in developing close working relationships with our farmer partners. Farmer knowledge and insights are vital tools in the fight against climate change – ones we must not overlook.

GROWING NUTRITION TOGETHER

We have worked with a unique network of farmer partners throughout the Midwest over the last four growing seasons. Out of this network, we worked particularly closely with farmers in our Food System innovators (FSI) Program. In 2023, these farmer partners helped us refine our technologies with real-time agronomic data collection and analysis. The enrichment of our CropOS® technology platform from these FSI farmer insights is then applied to our future commercial products.

The FSI Program collaborates with a select group of farmers distinguished by their track record as early adopters of innovation and their dedication to on-farm research. This partnership facilitates a dynamic exchange of information, linking farmers with our research, product development, and sustainability teams. Through this mutual collaboration, participating farmers receive early access to product concepts and the chance to access premium markets in plant-based protein and high-value sectors. We

promote sustainable farming methods, provide agronomic guidance, and disseminate best practices for cultivating identity-preserved crops. We recognize that the prosperity of our farmer partners is intricately linked with our own success.

While we operated under our closed-loop model for most of 2023, in the fall we began direct seed sales through www.bensonhillfarmers.com and our Proven Performance Direct program. Even with the growth of our direct seed sales, we will continue to contract and license to meet our business needs. As we move to an asset-light model, we have learned a great deal from our farmer partners that will continue to inform the way we recognize and prioritize their needs.



Harvesting for Tomorrow

Our natural resources are inherently entwined with feed, food and fuel markets, making preservation of these resources an ongoing concern. Soil health, deforestation, water stewardship and greenhouse gas emissions are all components of our assessment of environmental impacts as we seek to serve society and combat climate change. Our commitment to natural resource management in our daily operations is demonstrated by Benson Hill's [Environmental Policy](#).

SOIL HEALTH AND REGENERATIVE AGRICULTURE

Conservation and stewardship of land and soils is key to both food production and climate change mitigation. For Benson Hill, Regenerative Agriculture ties together healthy soil and nature restoration, nutritionally dense crop production, and economic viability for farmers. Benson Hill continues to work with farmers who are executing regenerative agriculture practices.

Our agronomists share knowledge around regenerative agriculture and its benefits. Cover crops, reduced tillage, chemistry, and nutrient management are all soil health practices that benefit land and farmer profitability. Added benefits such as decreased reliance on fertilizers and pest control inputs, time and labor savings, and lower greenhouse gas (GHG) emissions

are also realized while maintaining robust, nutrient-dense harvests. Land and productivity benefits are seen through building soil health indicators, such as organic matter, aggregate stability, and water-holding capacity with these practices.

Benson Hill continued its membership with [Field to Market](#) in 2023 to collaborate with farmers, agribusinesses, and food companies on more sustainable agriculture practices. Engaging with Field to Market gives Benson Hill access across the value chain, including shared learnings on sustainability best practices, the opportunity to build broad partnerships, and the ability to support the advancement of diversity, equity and inclusion (DEI) in the agriculture and food sectors.



Regenerative Agriculture is improving soil health and implementing climate-smart practices to grow nutritionally rich foods

Verification enabled by agronomic data collection



Cover Soils and Minimize Disturbance

- No-Till/Reduced Tillage
- Residue Management



Maintain Living Roots, Crop Diversity and Biodiversity

- Cover Crop, Multi-Species
- Crop Rotations



Improve Efficiency Through Technology

- Prescriptive Nutrient and Crop Protection
- Plant Genetics

OUR FARMERS

Preserving Natural Resources



ELIMINATING DEFORESTATION

Enacting policy represents just the initial phase in our efforts to actualize our pledges in safeguarding biodiversity and natural resources. To prevent deforestation or any developmental activities in high conservation-value forests within our operations, we incorporated a clause in our 2023 soybean grain farmer contracts expressly prohibiting such actions. Furthermore, we established robust infrastructure for continual auditing of our soybean fields across the United States, employing satellite imagery to monitor our fields effectively. Additionally, in 2023, we renewed ProTerra Certification, a third-party accreditation that rigorously evaluates and certifies our environmental and social performance, including our deforestation-free soy.



WATER STEWARDSHIP

With climate change exerting increasing pressure on water resources, the agricultural sector faces the imperative to optimize water usage. In 2023, the majority of our contracted farms relied on precipitation. While this reduces reliance on municipal water sources, it brings with it an escalating risk of drought induced by climate change.¹ To mitigate this challenge, we strategically diversify our soybean seed production fields across the Midwest, prioritizing regions with ample water resources. Vigilant drought monitoring throughout the agricultural cycle and maintaining open channels of communication with our farmer network are essential for effective risk management.

Recognizing the global significance of water scarcity and quality, we closely monitor water withdrawal and implement stringent measures to safeguard water reserves at our processing facilities. Increases in water withdrawal and consumption from 2022 to 2023 are driven by increased utilization at our Crop Accelerator facility which has seen a 54% increase in harvested plants year over year. In this report, our water footprint and baseline reflect the divestiture of the Creston and Seymour facilities.

30,302 M³

TOTAL WATER WITHDRAWN

2,866 M³

TOTAL WATER CONSUMED

0%

PERCENTAGE OF EACH IN
REGIONS WITH HIGH OR
EXTREMELY HIGH BASELINE
WATER STRESS

OUR FARMERS



OUR PRODUCTS

Benson Hill Ultra-High Protein soybeans deliver at least **20% more protein** right out of the ground compared to commodity U.S. soybeans.

Safe and Quality Products

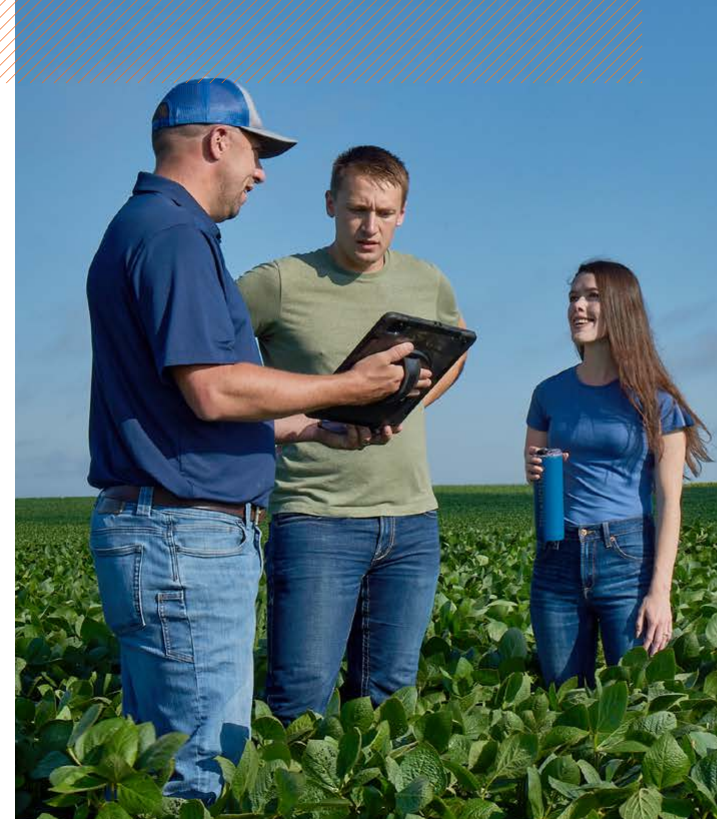
FEED AND FOOD SAFETY

At Benson Hill, our commitment to feed and food safety and quality is fundamental to our mission. Ensuring the safety of our ingredients is a shared responsibility among our team and customers alike. Each of our business segments maintains dedicated teams responsible for overseeing daily food safety and quality operations, continually refining systems and procedures. We regularly assess and mitigate risks by evaluating our processing and packaging facilities, conducting hazard analyses, and implementing preventive controls.

During 2023 our processing facilities upheld third-party certifications such as SQF (Safe Quality Food, a Global Food Safety Initiative), and others to validate our practices and drive continuous improvement. With our transition to an asset-light model, certifications held by soy processing plants in Creston, Iowa, and Seymour, Indiana, have transferred to the new ownership. In 2023, we achieved zero recalls and experienced no major non-compliance incidents resulting in fines or penalties for our human food ingredients.

NON-GMO PRODUCT MANAGEMENT

At Benson Hill, we champion consumer choice by adopting technology tailored to the preferences of feed and food markets. Our agricultural products come with a range of certifications and claims, communicating their production and manufacturing methods. Within our facilities, we uphold stringent internal standards for identity preservation and segregation. In 2023, our proprietary soybean products and ingredients earned third-party certifications for Non-GMO Project Verified and ProTerra Certification. Similarly, the yellow pea ingredients produced at Dakota Dry Bean, Inc. a wholly owned subsidiary of Benson Hill, are designated non-GMO.



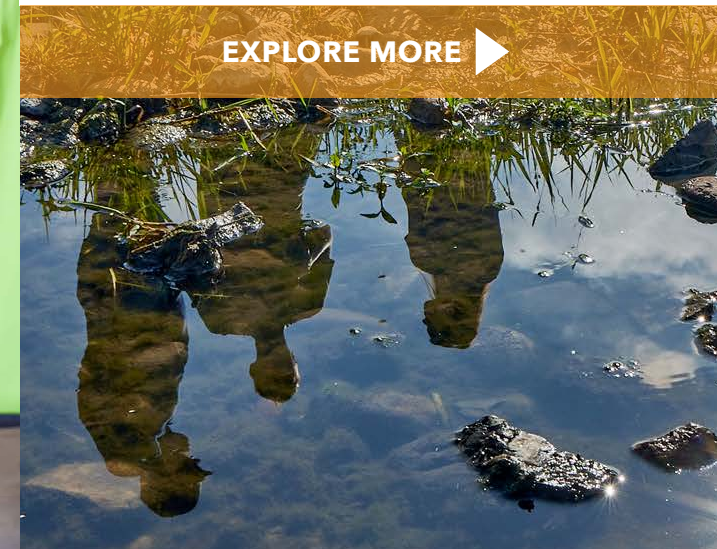
PROTERRA CERTIFICATION

In 2023, Benson Hill renewed our ProTerra Certification, an internationally recognized standard that encompasses rigorous criteria for sustainable agriculture, deforestation-free practices, biodiversity conservation, fair labor standards, and segregated non-GMO programs, among others. By continuing with this certification and membership in the ProTerra Network, Benson Hill underscores our commitment to sustainable practices and continuous improvement. Customers increasingly rely on third-party certifications to ensure environmental and social responsibility throughout the value chain, guaranteeing the procurement of sustainable and ethically sourced materials. As Benson Hill transitions to an asset-light model, we will continue to pursue certifications that best fit our products, push us to continuously improve, and validate best practices.

JULY 2023

ProTerra Audit and Certification
at Riensche Farms

EXPLORE MORE ▶



Ingredients With Sustainability Benefits

In 2023 we offered a diverse range of soy protein, specialty oil, and yellow pea ingredients sourced from both our proprietary and non-proprietary varieties, tailored for applications across the animal feed, food, pet food and fuel sectors. Our 2023 ingredient portfolio, derived from our exclusive soybean genetics, was meticulously crafted to fulfill the nutritional requirements and functional demands of our feed and food clientele. Better ingredients from better beans leads to opportunities for our customers. Whether it's less processing, higher quality or less need for other additives, our customers benefit from seed innovation.



MEASURING OUR ENVIRONMENTAL IMPACT

To assess the environmental impact of ingredients derived from our soybean genetics, we employ a Life Cycle Assessment (LCA) tool. In 2023, Blonk Consultants conducted LCAs on our yellow pea and soybean oil ingredients, adhering to ISO 14040, ReCiPe, and Product Environmental Footprint (PEF) methodologies. This comprehensive analysis incorporated primary data, encompassing our farm inputs, agronomic practices, logistics, and processing facility data, to evaluate the entire lifecycle of our ingredients. Initial findings on Benson Hill pea protein concentrate, normalized by protein content and utilizing both economic and mass allocations, affirm that Benson Hill ingredients yield higher protein levels with reduced environmental impacts compared to conventional U.S.-produced pea protein concentrate.¹ Soybean oil results indicate environmental impacts on par with the average U.S.-produced soybean oil, with the additional benefit of high oleic traits.¹ We remain committed to ongoing LCA monitoring that meets the needs of our customers and identifies avenues for further improvements that will promote environmental stewardship.

Measuring Our Greenhouse Gas (GHG) and Energy

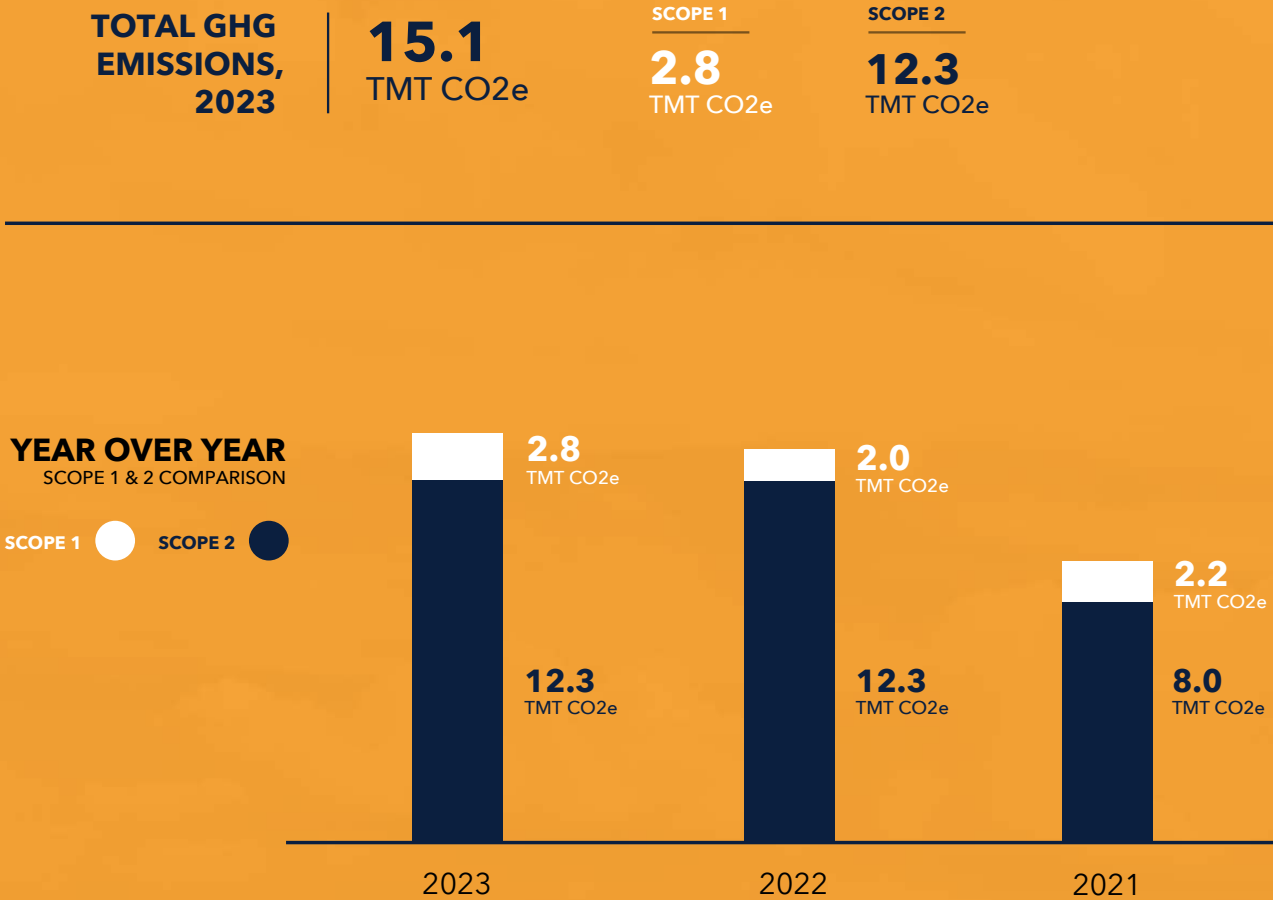
MEASURING OUR GREENHOUSE GAS EMISSIONS

2023 brought more changes to our corporate footprint. This year’s GHG inventory¹ excludes the soy processing facilities in Creston, Iowa, and Seymour, Indiana, which were sold in February 2024 and October 2023, respectively. These divestitures are also reflected in the exclusion of emissions related to both soy processing facilities from our 2021 and 2022 footprints in this report. Our Headquarters and Crop Accelerator facilities which opened in 2021 in St. Louis, Missouri, and our yellow pea ingredient operations at Dakota Dry Bean, Inc. are the primary components of our 2023 GHG footprint. Both locations drove an increase in Scope 1 emissions year over year and we will be paying close attention to how we can bring these emissions down over time. While an understanding of our supply chain emissions remains important, we will not be publishing our Scope 3 emissions for 2023 as we adjust to the changes in our business model. We expect to publicly share these emissions in the future.

ENERGY CONSUMPTION

Similar to our corporate GHG footprint, energy consumption data in this report reflects the sale of the soybean processing facilities across all years of data. Our energy footprint is primarily driven by electricity usage across our headquarters and research facilities. The use of propane in our yellow pea business unit also contributes to our overall energy consumption. We continue to identify opportunities for operational enhancements and efficiency gains aimed at decreasing energy consumption over time.

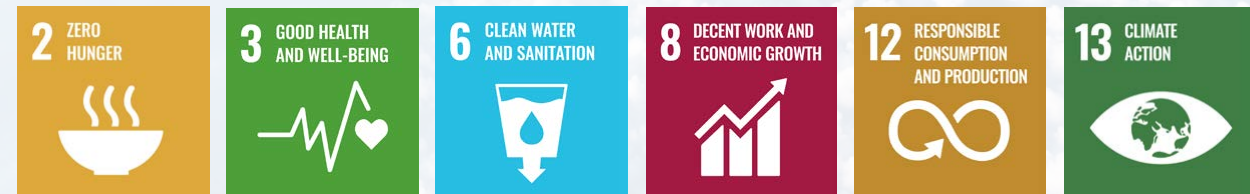
^{1.)} A carbon accounting platform was used in the development of the GHG emissions calculations, applying the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.



A Commitment to Global Partnership

In 2023, Benson Hill remained a signatory to the [United Nations Global Compact \(UNGC\)](#) to further our commitment to the UN Sustainable Development Goals. In addition, Benson Hill participated in the Climate Ambition Accelerator, a six-month program designed to accelerate companies' progress towards setting science-based emissions reduction targets aligned with the 1.5° C pathway. In participating, Benson Hill took away valuable insight that will guide our future target-setting.

The alignment of Benson Hill's strategic business goals with the [UN Sustainable Development Goals \(SDGs\)](#) is part of our commitment to seed innovation. The SDGs represent an urgent call to action through global partnership to end poverty, improve health and education, reduce inequality and spur economic growth, all while tackling climate change and preserving our oceans and forests. Through ongoing action in support of the SDGs, Benson Hill strives to be a part of this important work.





OUR PEOPLE

"This work is driven by an experienced and passionate team of professionals. Talent is a key driver of our success. Our team's diverse expertise gives us a competitive advantage, and directly impacts the success and creativity of our industry-leading innovation pipeline. With deep experience in breeding, genomics, agronomy, data analytics, AI and much more – we have assembled a winning team that delivers."

Jason Bull
Chief Technology Officer
Benson Hill

A Winning Team: Diverse & Driven

We are dedicated to cultivating an entrepreneurial atmosphere that sees team members as co-creators of a culture that fosters ongoing development and agile attainment of ambitious goals. We firmly believe that embracing diverse perspectives and ideas is the catalyst for the most impactful innovation.

OUR TOTAL REWARDS PHILOSOPHY

In alignment with our core value – Be Real – we administer our compensation programs in a transparent, trustworthy manner free of discrimination. As a company, we strive to provide total cash compensation that is market competitive to team members who have adequate experience and performance levels. Those with consistent top performance as well as critical positions that materially enable the business to advance our strategic aspirations receive base salaries above market.

Our pay-for-impact philosophy allows the company to deliver differentiated cash and non-cash awards based on company performance, individual performance and role criticality, thus maximizing long-term performance and shareholder return. Our compensation programs are benchmarked against peer companies that are of similar size as measured by headcount, market cap and annual revenue and that operate in relevant industry categories. As part of this philosophy,

in 2023 we implemented pay transparency, allowing team members a deeper understanding of their salary range based on their role and individual performance.

In addition to communicating the company goals and compensation program design, team members understand the impact their performance has on their market placement and annual incentive awards. This multi-faceted dialogue empowers team members to shift focus and impact in an agile manner, elevating overall company performance year over year.



Engaging Our Team Members

We actively promote ongoing learning among team members through various professional development opportunities, whether formal programs supported through tuition reimbursement or informal seminars led by team members. Transparency and communication are deeply ingrained in our culture, evidenced by our comprehensive Code of Conduct, Employee Handbook, regular training sessions, and updates. Additionally, we offer an Employee Stock Purchase Program (ESPP) to allow our team members participation in our success. Our headquarters building reflects our commitment to collaboration, flexibility, and inclusion, featuring amenities such as lactation rooms, inclusive bathrooms, a fitness center, and adaptable workspaces. We prioritize work-life integration and personal well-being by offering unlimited paid time off (PTO) to enable team members to balance work and personal commitments effectively.

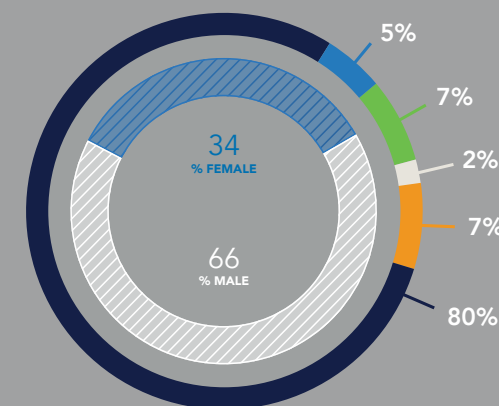
Benson Hill fosters a high-performance culture and drives robust business expansion within a dynamic and competitive industry. We achieve this by prioritizing targeted investments in our team members' well-being, financial growth, and professional development.

RECRUITING TALENT

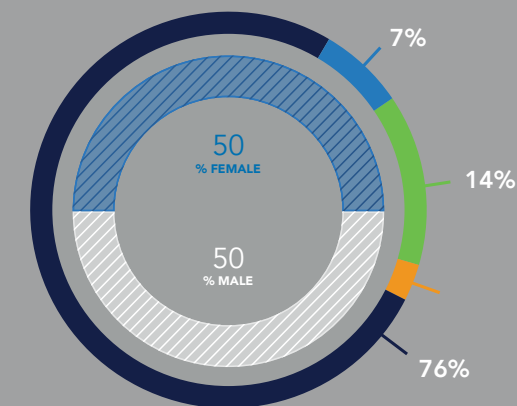
We strive to recruit and retain top-tier talent who not only excel in their skills but also align with our mission and embrace our team culture. Even in a competitive talent landscape, the Benson Hill mission deeply resonates with both candidates and team members. As part of our commitment to diversity and inclusion, we actively seek candidates from various backgrounds, publishing our job openings on over 40 different platforms, and targeting a wide array of diversity groups encompassing ethnicity, gender, sexual orientation, socio-economic status, and abilities. Our inclusive yet dynamic interview process involves one-on-one discussions, panel interviews, and peer conversations, assessing candidates not only for job fit but also for cultural alignment using competency-based techniques. Through the assembly of bold, authentic, and inspiring teams, we aim to deliver exceptional customer experiences.



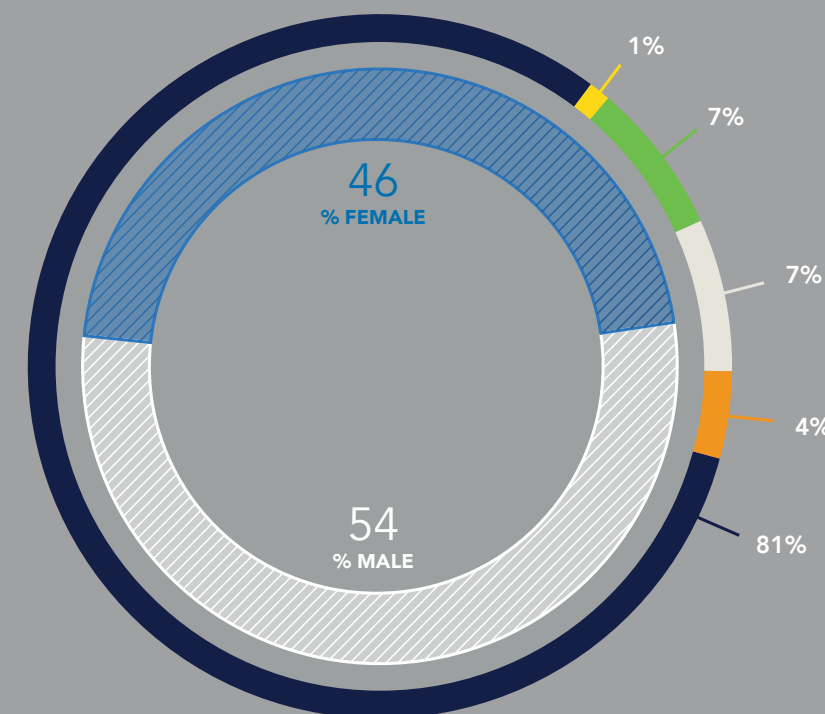
Executive & Senior Leaders



Non-Executive Leaders



Technical Staff & All Other Employees



ASIAN

BLACK

HISPANIC

WHITE

2 OR MORE

AI OR AK NATIVE

Building Culture Through Employee-Led Councils

Our employee-led councils empower our workforce to actively influence and steer our organizational culture. Comprising team members who spearhead various initiatives, each council receives support and sponsorship from our Executive Leadership Team.



DIVERSITY, EQUITY & INCLUSION COUNCIL

Diversity, Equity and Inclusion Council (DE&I): The belief that different perspectives, backgrounds, cultures, disciplines and capabilities fuel innovation is built into our core values. The DE&I Council, with the support of all levels of leadership, fosters inclusion throughout our workforce with awareness campaigns and celebrations. Whether it’s building knowledge or recognizing the contributions from scientists of all backgrounds, the council serves as a resource for peers. While these actions are often a fun way to engage with coworkers, they also create the space for meaningful and sometimes difficult conversations, building a culture that welcomes all.

ENGAGEMENT COUNCIL

Engagement Council: A foundation of our vibrant workplace culture, embodying our core values and fostering a sense of community among team members, the Engagement Council creates opportunities for team members to connect, relax, and recharge. Whether it’s taking a break to visit together with co-workers, expressing gratitude for each other’s contributions or enjoying music together, the activities led by our Engagement Council enrich our work environment and promote camaraderie across the organization.

2023 was a year of challenge and change across Benson Hill that impacted the workforce. Despite this transition, Benson Hill’s culture remained strong with team members continuing to report a 76% intent to stay in a 2023 engagement survey.

LEADERSHIP COUNCIL

Leadership Council: Collaborating with other councils and the Executive Leadership Team, the Leadership Council comprises a distinguished group of trusted leaders dedicated to advancing best-in-class leadership practices, leader competencies, learning curriculum, and the alignment of core talent programs. These efforts aim to recruit, develop, and recognize exceptional Benson Hill leaders.

WELLNESS COUNCIL

Wellness Council: The Wellness Council is dedicated to promoting the well-being of our team members. Through a variety of initiatives, such as a Sleep Contest, Mental Health Awareness Month, and Nutritional November events, the council creates opportunities for team members to prioritize their health and wellness. From encouraging better sleep habits and raising awareness about mental health to promoting nutritious eating habits and fitness, these initiatives foster a supportive and healthy work environment where team members can thrive both personally and professionally.



A Healthy Workspace Wins

WORKPLACE HEALTH AND SAFETY

Our foremost commitment is to prioritize the safety and well-being of our team members, contractors, partners, and communities. Upholding this principle, our Code of Conduct and workplace health and safety protocols align with local, state, and federal regulations at all our operational facilities. Each site is overseen by dedicated EHS (environmental health and safety) leaders who enforce policies, manage health and safety incidents, and track incident rates. Mandatory training, tailored to each location, covers a range of topics including accident prevention, emergency preparedness, cybersecurity, harassment prevention, company policies, and regulatory compliance.

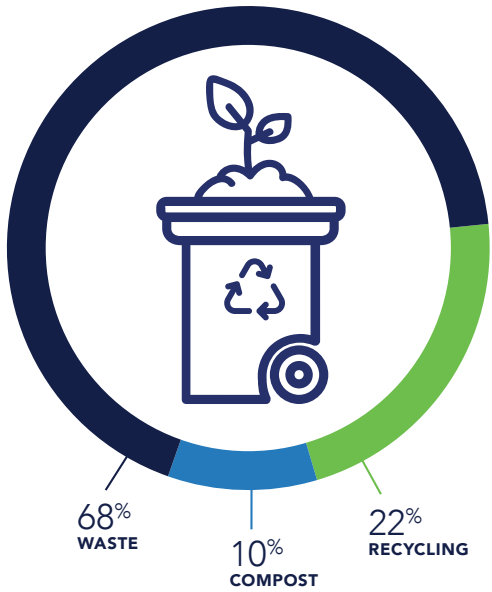


TRIR TOTAL RECORDABLE
INCIDENCE RATE 1.2

ZERO FATALITIES IN 2023

WASTE MANAGEMENT

At our Headquarters and Crop Accelerator facilities in St. Louis, we participate in recycling and composting programs. In 2023 we diverted approximately 22% of our waste to recycling and approximately 10% to compost.



Connection With Our Community

COMMUNITY ENGAGEMENT

We strongly believe in the promise of innovation and science as drivers of job creation and regional economic development and are honored to collaborate and support local entities within our geographical footprint doing this important work.

By supporting community organizations that enrich diversity, foster change, and strive to innovate, we align with our core values: to Be Bold, Be Inspired and Be Real. We continue to support groups like St. Louis Agribusiness Club and MOBIO, among others, putting resources back into the St. Louis region as a food and agriculture innovation hub.

We maintained a robust tour program throughout 2023, hosting 40+ tours with schools and colleges, government officials, civic organizations, industry groups, customers, farmers and other stakeholders. Visitors to our Headquarters and Crop Accelerator gain an immersive understanding of the work we do and the impact we seek to achieve both locally and globally.



Saint Louis Science Center

In spring 2023, we partnered with the [Saint Louis Science Center](#) to showcase Benson Hill's proprietary Ultra-High Protein (UHP) commercial soybeans in the Science Center's outdoor GROW Gallery. There, guests can learn about how Benson Hill used traditional breeding procedures to create these high-protein soybeans, as well as their benefits for farmers, food production, and the planet.



39 North Innovation District

In 2023, Benson Hill deepened its relationship with [39 North Innovation District](#), becoming an anchor institution and joining the board of directors. With roughly half of all U.S. agriculture produced within a 500-mile radius of St. Louis, including 80% of corn and soybeans, the 39 North Innovation District is a 600-acre innovation district, founded on the idea of creating an ecosystem where scientists, startups, students, innovators, investors, companies and the community want to be. It is a place designed from the ground up to be synonymous with ag tech and plant science, aided by human and investment capital and supported by physical infrastructure and close to more than 50% of the food producers of America's Heartland.



OUR PROGRESS

"Benson Hill has the agility to persevere...we believe the strengthening of our financial foundation, moving to an asset-light business model, and introducing our innovations into attractive broader end markets, is the most feasible path forward for Benson Hill."

Deanie Elsner
Chief Executive Officer

The Future

2023 marked a year of significant progress and change for Benson Hill. We successfully demonstrated our ability to deliver our financial commitments in addition to taking the necessary steps to strengthen our balance sheet. To increase focus on our competitive advantage, we shifted to an asset-light business model and diversified our portfolio to penetrate new market opportunities in animal feed. The near-term opportunity in animal nutrition is consistent with Benson Hill’s strategy to expand and diversify our proprietary product portfolio, improve nutrition security, and foster collaboration with industry partners within the food value chain.

Through an external analysis and strategic review process with the board, Benson Hill validated the novel value-added attributes for poultry diets, swine rations and pet food for several non-GMO, Ultra-High Protein low oligosaccharide (“UHP-LO”) commercial soybean varieties. Research confirmed a trifecta of product attributes offered with UHP-LO desired by animal nutritionists, processors, feed formulators, and farmers,¹as compared to commodity soybeans:

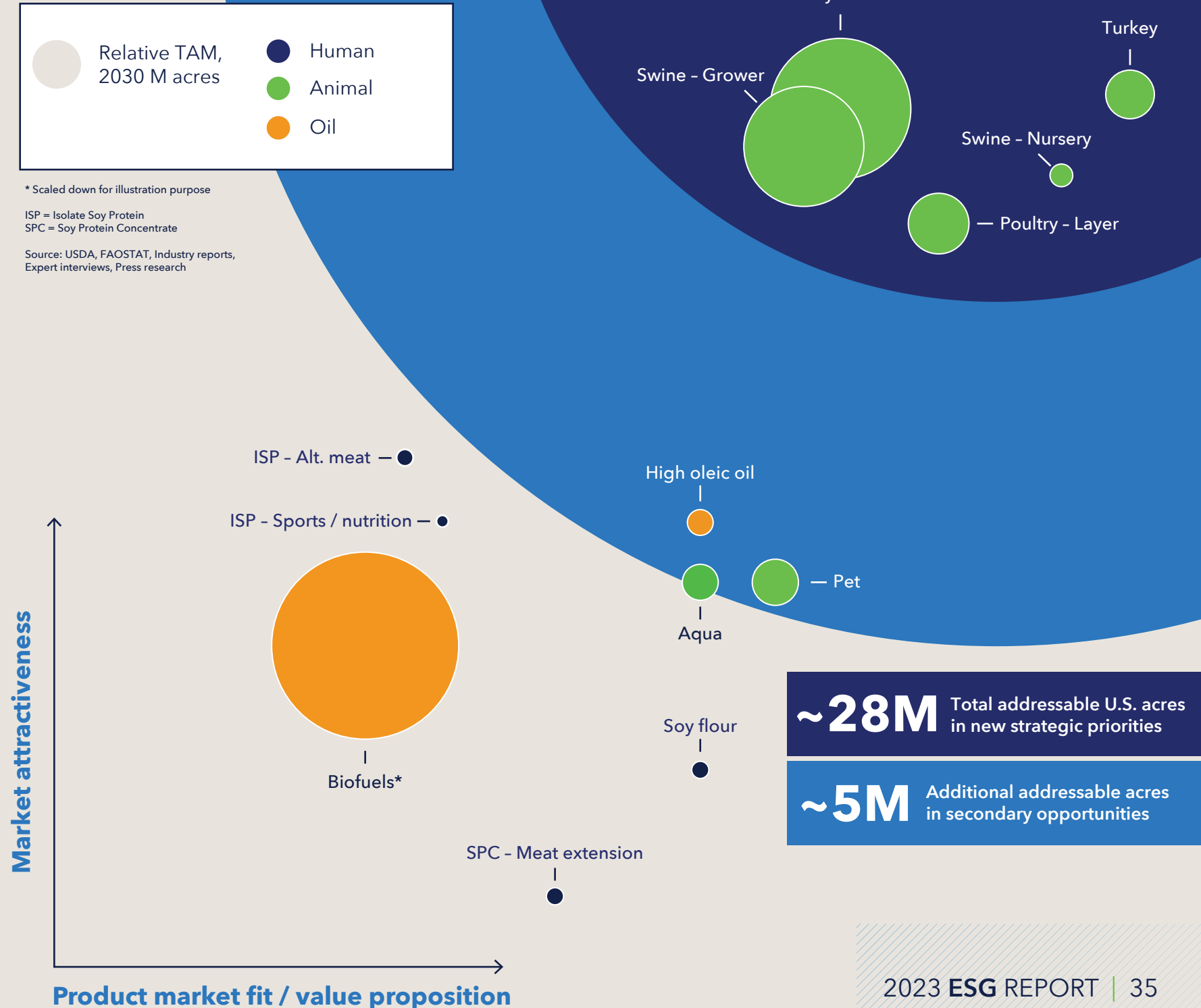
- Higher Protein Levels:** Animal feed costs can be lowered by replacing expensive animal protein sources with non-GMO, U.S.-grown soybean meal.
- Lower Anti-Nutritional Factors and More Energy:** Improved soybean meal with fewer anti-nutritional factors supports animal digestive health² and overall performance, contributing to the advancement of animal welfare.
- Enhanced Amino Acid Profile:** Essential amino acids reduce the need to add high-cost synthetic amino acids to feed.

As we diversify into these market segments, improving the environmental footprint of agriculture continues to matter to us and to the stakeholders we have engaged across the value chain. Benson Hill soybeans provide more nutrition per acre, which results in less pressure on the land, less pressure on water, and lower carbon intensity per unit of output. UHP-LO varieties already demonstrate improved resource-use efficiency over commodity beans, a delta that will increase as our innovation pipeline matures.

EXISTING MARKETS AND ADDITIONAL OPPORTUNITIES

SECONDARY OPPORTUNITIES

NEW STRATEGIC PRIORITIES



Index

TOPIC	SASB REFERENCE	GRI REFERENCE NUMBER	2023 MEASURE	2022 MEASURE	2021 MEASURE	UN SDG
Greenhouse Gas Emissions						13 Climate Action
Gross global Scope 1 emissions*	FB-AG-110a.1	305-1	2.8 TMT CO2e	2.0 TMT CO2e	2.2 TMT CO2e	
Scope 2 emissions*		305-2	12.3 TMT CO2e	12.3 TMT CO2e	8.0 TMT CO2e ¹	
Scope 3 emissions*		305-3	Not reported	437 TMT CO2e	Not reported	
Fleet fuel consumed, percentage renewable*	FB-AG-110a.3		4,503 GJ, 0% ²	3,795 GJ, 0%	Not reported	
Energy Management						13 Climate Action
(1) Operational energy consumed*	FB-AG-130a.1	302-1	125,108 GJ	110,819 GJ	91,614GJ	
(2) Percentage grid electricity	FB-AG-130a.1	302-1	100%	100%	100%	
(3) Percentage renewable	FB-AG-130a.1	302-1	0%	0%	0%	
Energy Intensity per ton of Product Sold**			Pea: 0.93 GJ/ton	Pea: 0.68 GJ/ton ³	Not reported	
Water Management						6 Clean Water & Sanitation
(1) Total water withdrawn*	FB-AG-140a.1	303-3	30,302 m³	20,350 m³	13,758 m³	
(2) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	FB-AG-140a.1	303-5	2,866 m³, 0%	765 m3, 0%	1,022 m3, 0%	
Description of water management risks and discussion of strategies and practices to mitigate those risks	FB-AG-140a.2	3-3	pg. 22	pg. 22		
Number of incidents of non-compliance associated with water quality permits, standards, and regulations*	FB-AG-140a.3		0	0	0	
Water Intensity**			Pea: 0.01 m³/ton	Pea: 0.01 m³/ton	Not reported	
Waste Management						12 Responsible Consumption & Production
Waste generated		306-3	102 tons of waste generated from HQ and Crop Accelerator facilities only	Not reported	Not reported	
Waste diverted from disposal		306-4	22% diverted to recycling, 10% diverted to compost, from HQ and Crop Accelerator facilities only	22% diverted to recycling, 8% diverted to compost, from HQ and Crop Accelerator facilities only	Not reported	
Waste directed to disposal		306-5	68% directed to disposal, from HQ and Crop Accelerator facilities only	70% directed to disposal, from HQ and Crop Accelerator facilities only	Not reported	

TOPIC	SASB REFERENCE	GRI REFERENCE NUMBER	2023 MEASURE	2022 MEASURE	2021 MEASURE	UN SDG
Workforce Health and Safety						3 Good Health and Well-Being
(1) Total recordable incident rate (TRIR)* ⁴	FB-AG-320a.1	401-9	1.2	0.9	1.34	
(2) Fatality rate for (a) direct employees and (b) contract employees	FB-AG-320a.1		(a) 0 (b) 0	(a) 0 (b) 0	0	
Environmental & Social Impacts of Ingredient Supply Chain						12 Responsible Consumption and Production
Percentage of agricultural products sourced that are certified to a third-party environmental and/or social standard, and percentages by standard	FB-AG-430a.1		Proprietary Soybean: 100% Non-GMO Project Certified, 19% of all soybean agricultural product purchased was ProTerra Certified	Proprietary Soybean: 100% Non-GMO Project Certified, 9% of all soybean agricultural product purchased was ProTerra Certified	Proprietary Soybean: 100% Non-GMO Project Certified	
Discussion of strategy to manage environmental and social risks arising from contract growing and commodity sourcing	FB-AG-430a.3		pg. 22, 24, 25	pg. 22, 25		
GMO Management						12 Responsible Consumption & Production
Discussion of strategies to manage the use of genetically modified organisms (GMOs)	FB-AG-430b.1		pg. 24	pg. 24		
Ingredient Sourcing						13 Climate Action
Identification of principal crops and description of risks and opportunities presented by climate change	FB-AG-440a.1		Pg 18, 21, 22, 24	pg. 24		
Recruiting & Managing a Global, Diverse & Skilled Workforce						8 Decent Work and Economic Growth
Percentage of gender and racial/ethnic group representation for (1) management	TC-SI-330a.3	405-1	Executive/Senior Leaders: 66% Male, 34% Female	Executive/Senior Leaders: 63% Male, 37% Female	All Managers: 60% Male, 40% Female	
	TC-SI-330a.3	405-1	Non-Executive Leaders: 50% Male, 50% Female	Non-Executive Leaders: 64% Male, 36% Female	Not reported	
	TC-SI-330a.3	405-1	Executive/Senior Leaders: Asian 7%, Black 2%, Hispanic 7%, White 80%, 2 or more 5%	Executive/Senior Leaders: Asian 5.3%, Black 2.6%, Hispanic 2.6%, White 84.2%, 2 or more 5.3%	Not reported	

TOPIC	SASB REFERENCE	GRI REFERENCE NUMBER	2023 MEASURE	2022 MEASURE	2021 MEASURE	UN SDG
Recruiting & Managing a Global, Diverse & Skilled Workforce			8 Decent Work and Economic Growth			
	TC-SI-330a.3	405-1	Non-Executive Leaders: Asian 14%, Black 0%, Hispanic 3%, White 76%, 2 or more 7%	Non-Executive Leaders: Asian 9.1%, Black 2.6%, Hispanic, 5.2%, White 81.8%, 2 or more 1.3%	Not reported	
(2) technical staff (3) all other employees	TC-SI-330a.3	405-1	54% Male, 46% Female	59% Male, 41% Female	57% Male, 43% Female	
	TC-SI-330a.3	405-1	Asian 7%, Black 7%, Hispanic 4%, White 81%, 2 or more 0%, AI or AK native 1%	Asian 5.1%, Black 4.3%, Hispanic 4.3%, White 83.9%, 2 or more 2.0%, AI or AK native 0.4%	Asian 12%, Black/African 2%, Hispanic/Latinx 5%, White 78% ,2 or more races 1%, Not Disclosed 2%	
Recruitment and Retention			8 Decent Work and Economic Growth			
Discussion of talent recruitment and retention efforts for scientists and research and development personnel	HC-BP-330a.1	3-3	Pg 29-31	Net Promotion 77%, Intent to Stay 82%, Response Rate 96% (does not include Creston and Seymour facilities)	Net Promotion 78%, Intent to Stay 83%, Response Rate 93%	
Voluntary and involuntary turnover rate for all employees	HC-BP-330a.2		Executive/Senior Leaders: 7% Voluntary, 37% Involuntary	Executive/Senior Leaders: 2.95% Voluntary, 1.49% Involuntary	Not reported	
	HC-BP-330a.2		Non-Executive Leaders: 40% Voluntary, 15% Involuntary	Mid-Level Managers: 8.84% Voluntary, 2.76% Involuntary	Not reported	
	HC-BP-330a.2			Professionals: 6.71% Voluntary, 2.70% Involuntary	Not reported	
	HC-BP-330a.2		All Others: 20% Voluntary, 32% Involuntary	All Others: 6.41% Voluntary, 2.08% Involuntary	Not reported	
Activity Metrics						
Number of processing facilities*	FB-AG-000.B		3	3	3	
Data Security						
Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	TC-SI-230a.2		pg. 12	pg. 12		

*2021 and 2022 metrics reflect updates to remove J&J, Creston, IA, and Seymour, IN, facilities
 ** Soy metrics removed as Benson Hill moves to an asset-light model and divests Creston, IA, and Seymour, IN, facilities
 1.) The primary driver of Scope 2 emissions are the HQ and Crop Accelerator buildings which were brought online over the course of 2021; this metric does not represent full year usage
 2.) The fleet fuel increase from 22 to 23 is driven by a 12% increase in acreage year over year
 3.) An error was found in the 2022 Pea energy intensity calculation which has been corrected here
 4.) National average TRIR for agriculture, forestry and fishing industry is 2.7

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