



2021 SUSTAINABILITY REPORT

About this Report

Since 1845, we have provided quality hops and hop products to breweries around the world. This report discusses our efforts to leverage sustainable principles as we continue to grow our business while innovating for our growers and customers. Our employees are the fulcrum of this lever, and we are committed to their professional and personal growth.

The 2021 Sustainability report is a snapshot of our environmental, social, and economic impacts, including the governance structures necessary for managing them, from January 1, 2021, to December 31, 2021. In the future we intend to use our annual Sustainability Report to communicate updates to sustainability topics that are material to our organization. Those topics will continue to evolve based on stakeholder feedback, market conditions, and business needs.

To serve our customers, the Hopsteiner Group operates in all primary hop-growing regions located in the largest hop-growing countries in North America, Europe, and Asia. Our largest operations and headquarters are in the United States. This report covers the U.S. operations under the direction of S.S. Steiner Inc. (Steiner) and two wholly-owned subsidiaries – Hops Extract Corporation of America (HECA) and Golden Gate Hop Ranches, Inc. (GGHR).



Reporting Framework

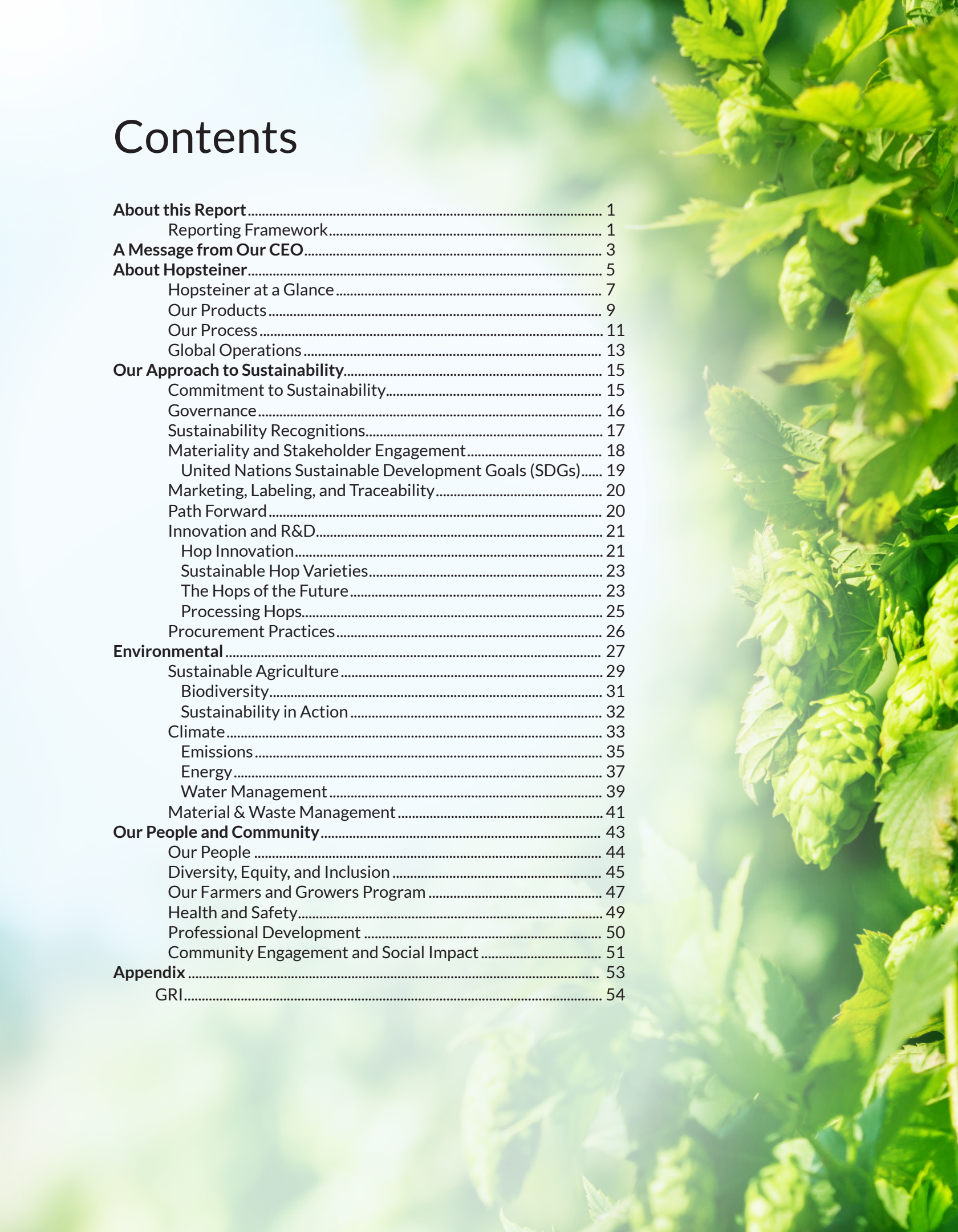
This report was prepared with reference to the Global Reporting Initiative Sustainability Reporting Standards (“GRI Standards”), one of the world’s most widely used frameworks for sustainability reporting. These standards were established by the Global Reporting Initiative (GRI), an international organization that assists the public, private, and non-profit sectors in disclosing the impacts of their activities on the economy, the environment, and society – in addition to the corresponding systems of governance for addressing them – in a structured way that is transparent to stakeholders.

We used some (or parts of) GRI Standards to report our entities’ material topics based on the results of our stakeholder engagement, evolving conditions on the ground, and data availability. We include a GRI content index (“Index”) in the Appendix of this report to provide meaningful data to our internal and external stakeholders and facilitate navigation of the reported information. The Index includes aggregated information on the three entities covered in this report: pelletizing, processing, & growing.

The data measurements and disclosures presented in this report were done in good faith but did not go through an external assurance process (AICPA attestation standards, etc.) unless otherwise stated. We envision a greater role for third-party assurance in the future.

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A Message From Our CEO

CEO Statement

From our roots in 1845 in southern Germany to becoming the global hop dealer, grower, and processor that we are today, Hopsteiner has always understood the value and imperative of long-term thinking. Our business is based on quality and service – we are dedicated to providing the highest quality products and services for our long-term customers and growers.

Long-term thinking is at the core of our business and has served us well over the decades. We have 177 years of knowledge and experience based on patience and proper execution and, we stand ready to manage the challenges of the future. As an industry pacesetter, we recognize the urgency of leading by example in quality and service, in stewardship of our human and natural resources. We have answered the call of our brewer partners and their customers' needs for environmentally friendly products; we have focused our hop breeding program to produce varieties with higher yields, lower nutrient requirements and greater disease resistance.



"Our business was founded on the qualities of dedication, loyalty, and perseverance..."

Louis Gimbel, CEO

Our success will be borne out of a strategy grounded in loyalty to the environment and to each other – and in solutions that bring benefits to all our stakeholders. This especially applies to our personnel, without whom we would never have made it this far as a company. It has been their loyalty and commitment to making a difference each and every day that created our global standing and earned our position as the partner of choice of the world’s largest breweries. We are extremely grateful and are motivated to pursue and foster the best working environment with continuous opportunities for growth and improvement.

Hopsteiner USA’s sustainability report is part of maintaining a comprehensive sustainability strategy that includes pragmatic and achievable short- and long-term goals. It is also a platform to showcase our commitment to our colleagues, our suppliers, our customers, and the environment. We trust that as you read through the sections and learn about our work, the report will provide valuable insight into our thinking, endeavors, and outlook for the future.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Gimbel IV', followed by a horizontal line extending to the right.

Louis Gimbel IV
Chief Executive Officer

About Us

Since 1845, we have been passionate about hops. Hops and hop products are key ingredients in beer and connect us to both nature and one another. In the almost two centuries since our founding, we have grown into one of the world's leading hop suppliers. Today, through six generations, we are proud owners of Hopsteiner hop farms and processing facilities.

Hopsteiner has been a dedicated partner of brewers of all sizes in securing a wide array of public and proprietary hop varieties from across the globe. Our unique range of hop varieties and innovative hop products are designed to enhance flavor, aroma, consistency, and flexibility for brewing and beyond. As a vertically integrated hop supplier, Hopsteiner grows, breeds, and processes the highest-quality hops and hop products available while also being a true steward of the land.

We process hops through sustainable approaches to growing, cultivating, producing, and refining that helps safeguard biodiversity and our natural resources. Our business practices impact global sustainable development and its three central pillars. As such, Hopsteiner strives to make our trade practices as economically, environmentally, and socially responsible as possible.

Our passion for hops, beer, innovation, and operational excellence runs parallel to our care toward people and our stewardship of the planet. We aim to use the best ingredients for our products and aspire to do our part to contribute to environmental sustainability, social well-being, and economic growth.

Our team works tirelessly to provide our customers with hops and innovative hop products of the highest quality with an eye toward business efficiency, ethics and sustainability. With more than 170 years of hop growing and processing experience, we understand that quality begins



first and foremost with agricultural practices. As sustainability is a key ingredient to this success, we look forward to collaborating with growers and customers as we seek the common goal of a more sustainable future.





“Our team works tirelessly to provide our customers with hops and innovative hop products of the highest quality with an eye toward business efficiency, ethics and sustainability.”



Our Purpose

ORGANIZATION NAME:

Hopsteiner

BUSINESS DESCRIPTION:

Hopsteiner is a 177-year-old family-owned business that has been passed down over six generations.

Hopsteiner is a market leader in the growing and processing of hops, supplying to breweries around the globe.

Hopsteiner provides a unique range of varieties and innovative hop products to breweries, guided by modern sustainability and responsible business standards.

CORPORATE HEADQUARTERS:

725 5th Avenue
New York, NY 10022

***HOPSTEINER IS THE
PERENNIAL PIONEER
IN THE BEER INDUSTRY.***





VALUE STATEMENT

Hopsteiner's portfolio of proprietary hops are sourced from a state-of-the-art breeding program, grown to the highest standards, and supported by world-class service, and guided by the highest standards of sustainability.

PURPOSE

Committed to brewers and their mission to create the best beers possible while positively impacting the world.

VISION

To innovate the most sustainable, unique, and highest quality products that support brewers throughout the world.

Our attitude towards hops is rooted in passion, innovation, quality, and the satisfaction felt from positively impacting our people and our customers. Aspiring to do our part means contributing to environmental sustainability, social well-being, and long-term economic growth. Hopsteiner prioritizes integrating sustainable practices into our operations.

ATTITUDE

Our attitude towards hops is rooted in passion, innovation, quality, and the satisfaction felt from positively impacting our people and planet. Aspiring to do our part means contributing to environmental sustainability, social well-being, and fair economic growth.

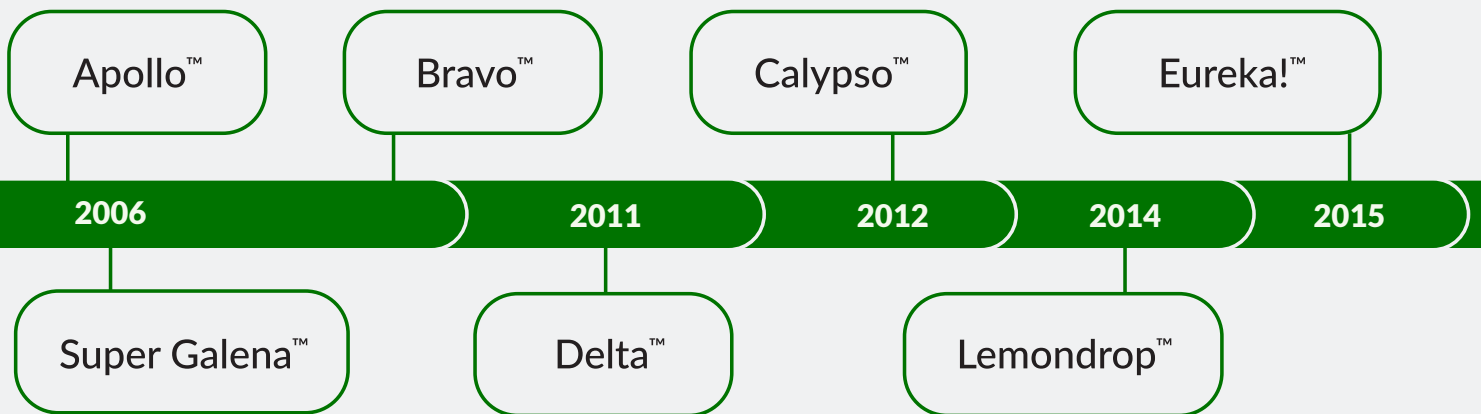
Hopsteiner prioritizes integrating sustainable practices into every aspect of our operations.

Our Products



For decades, Hopsteiner has helped brewers secure a broad range of public and proprietary hop varieties from all corners of the world. Our proprietary hops are bred relying on a culture of innovation and technical know-how to continuously explore their application to new products and purposes. The potential wide-ranging applications of hops have presented us with a unique opportunity to build on our expertise in hop breeding to cultivate sustainable, high-yielding varieties. Regardless of use, our process ensures a consistent level of quality and performance.

Variety Timeline





LEAF



POWDER



PELLET

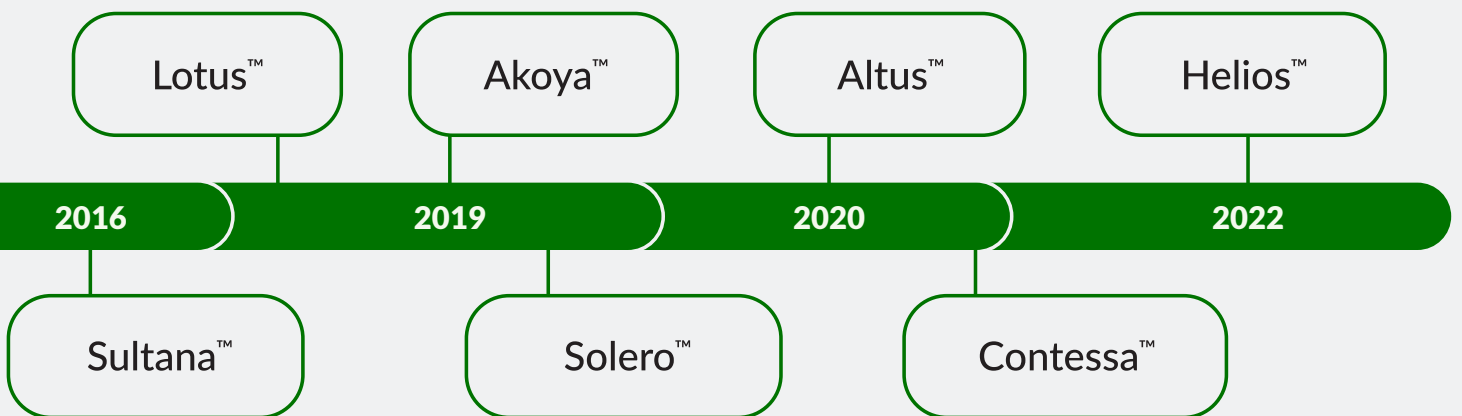


OILS



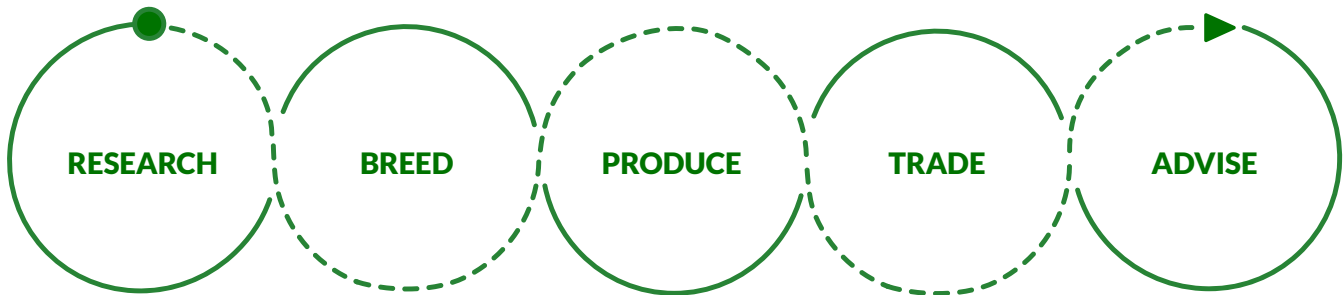
EXTRACT

"DARE TO BREW DIFFERENT" is built on a robust in-house research program to advance our hop cultivation, processing, and refinement techniques. A commitment to innovation through our breeding program has provided a hop variety and adaptability unmatched in the industry. This focus provides a more comprehensive offering to our customers and provides a platform to reduce environmental impact. To understand how we are reducing environmental impact through our breeding program, please see the environmental section later in this report.



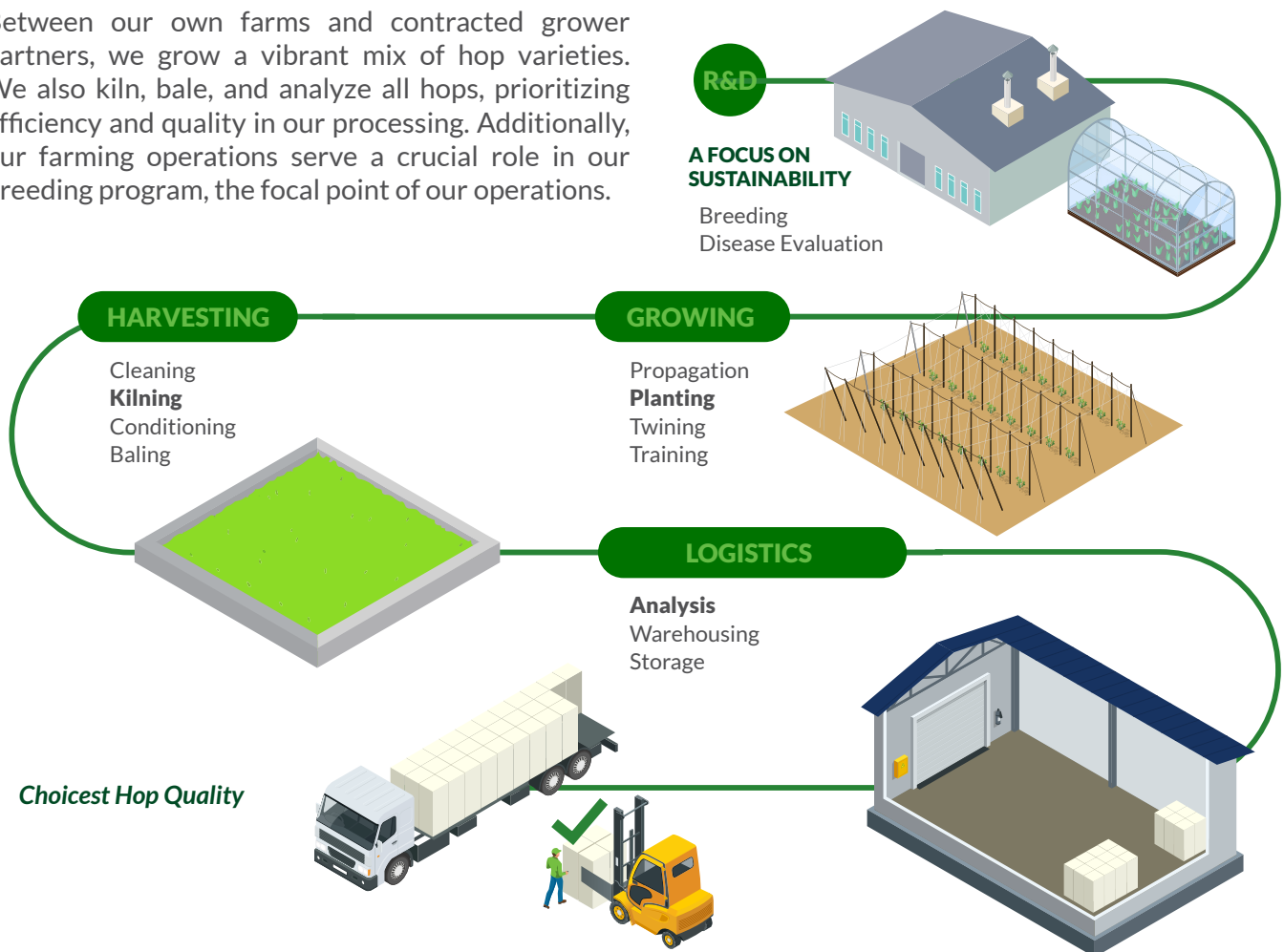
Our Process

Few organizations in the hops industry have the scope or depth of our technical processes. Our vertical operations start with our industry-leading research and breeding program that brings expertise and guidance to stakeholders throughout the brewing value chain. Our hop pelleting and extraction processes provide world-class hop products to breweries of any size anywhere in the world.



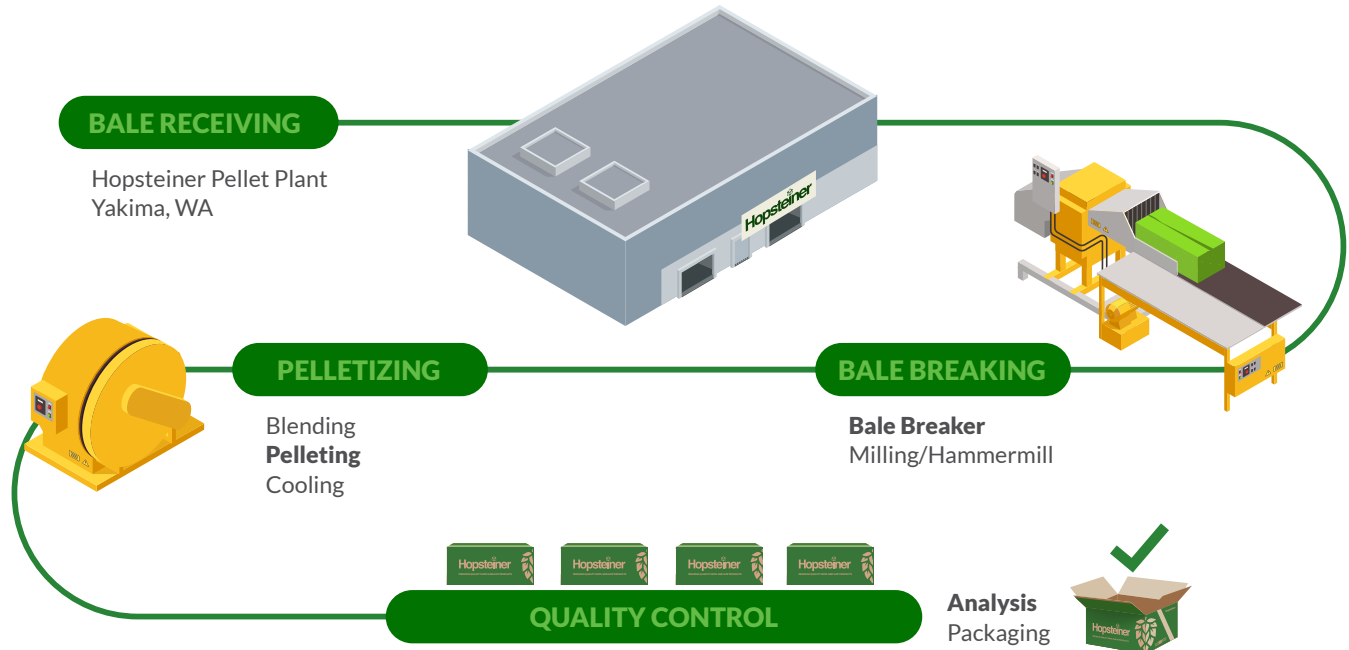
Farming

Between our own farms and contracted grower partners, we grow a vibrant mix of hop varieties. We also kiln, bale, and analyze all hops, prioritizing efficiency and quality in our processing. Additionally, our farming operations serve a crucial role in our breeding program, the focal point of our operations.



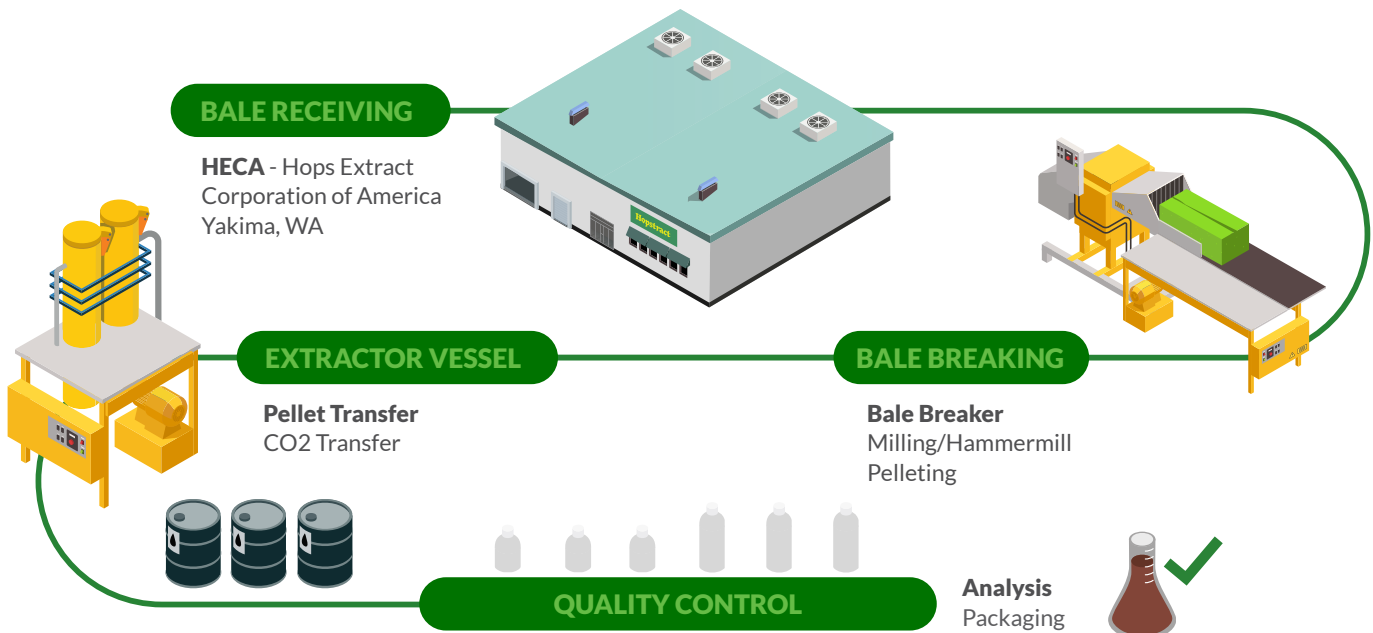
Pelletizing

During the months after harvest, we mill hops into powder and then blend the powder into pellets of uniform size. Once analyzed for quality, we package the pellets in airtight containers before storing or shipping them.



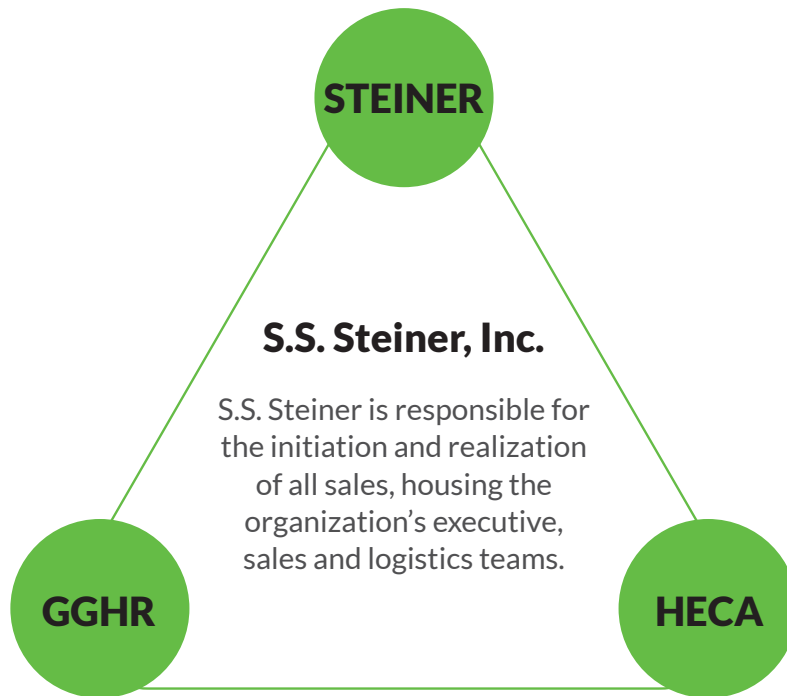
Extraction

We extract the alpha acids, beta acids, and oils from hops using a natural extraction process with CO2. We then sell the CO2 extract or utilize it as a raw material for our downstream product (DSP) processing. DSP products can add to brewery efficiency



Global Operations

In the U.S.A. Hopsteiner leverages its services and capabilities in two areas – hop breeding and hop processing. S.S. Steiner Inc. (Steiner) is the parent company of the Hopsteiner Group, leveraging the services and capabilities of two wholly owned subsidiaries – Hops Extract Corporation of America (HECA) and Golden Gate Hop Ranches, Inc. (GGHR). All three entities together serve distinct functions in the overall business structure of the organization. This report will cover the operations within Steiner, HECA, and GGHR exclusively. Golden Gate's non hop farming operations are not included in this report.



Golden Gate Hop Ranches, Inc.

GGHR operates farming operations, including our renowned hop breeding program. Through innovative research and design, GGHR is working towards breeding a more sustainable and efficient hop.

Hops Extract Corporation of America

HECA manages the processing and packaging of all hop products, including hop extracts, oils, and pellets. HECA also houses our hop product research and development team.

The Hopsteiner Group



Our hop products are distributed globally to more than 140 countries, with a clientele that ranges from multinational corporations to small- and medium-sized enterprises. Guided by ethical and sustainable standards, Hopsteiner aims to be a leader in our industry with the highest quality hops and hop products

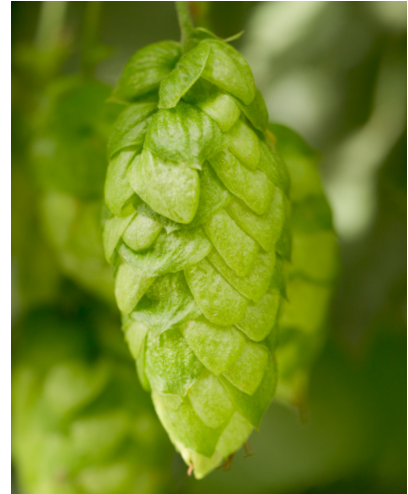
The Hopsteiner Group has a presence in all major hop-growing regions worldwide to better serve our customers. Our locations include some of the largest hop-growing countries - United States, Germany, China, the Czech Republic and Slovenia.



Our Approach to Sustainability

Commitment to Sustainability

As a leader in the hop industry, we appreciate that our activities have an impact on the environment, our workforce, and community. Accordingly, we place considerable emphasis on integrating sustainable practices throughout our operations.



AN INTEGRATED ESG APPROACH WILL ADVANCE OUR SUSTAINABILITY STRATEGY BY:

Working on reducing our emissions to shrink our carbon footprint while addressing other “Environmental” considerations, including energy, water, and waste management

Supporting our employees, growers and, local communities as part of our “Social” commitment

Developing robust corporate “Governance” for effectively managing our sustainability risks and opportunities and that includes a collaborative approach both inside Hopsteiner and externally

SUSTAINABLE PRACTICES ARE KEY TO OUR OPERATIONS AND LAND STEWARDSHIP

“Sustainability and economic growth are not mutually exclusive. We are striving to use both to make a positive impact on people, the economy, and the planet for today and future generations.”

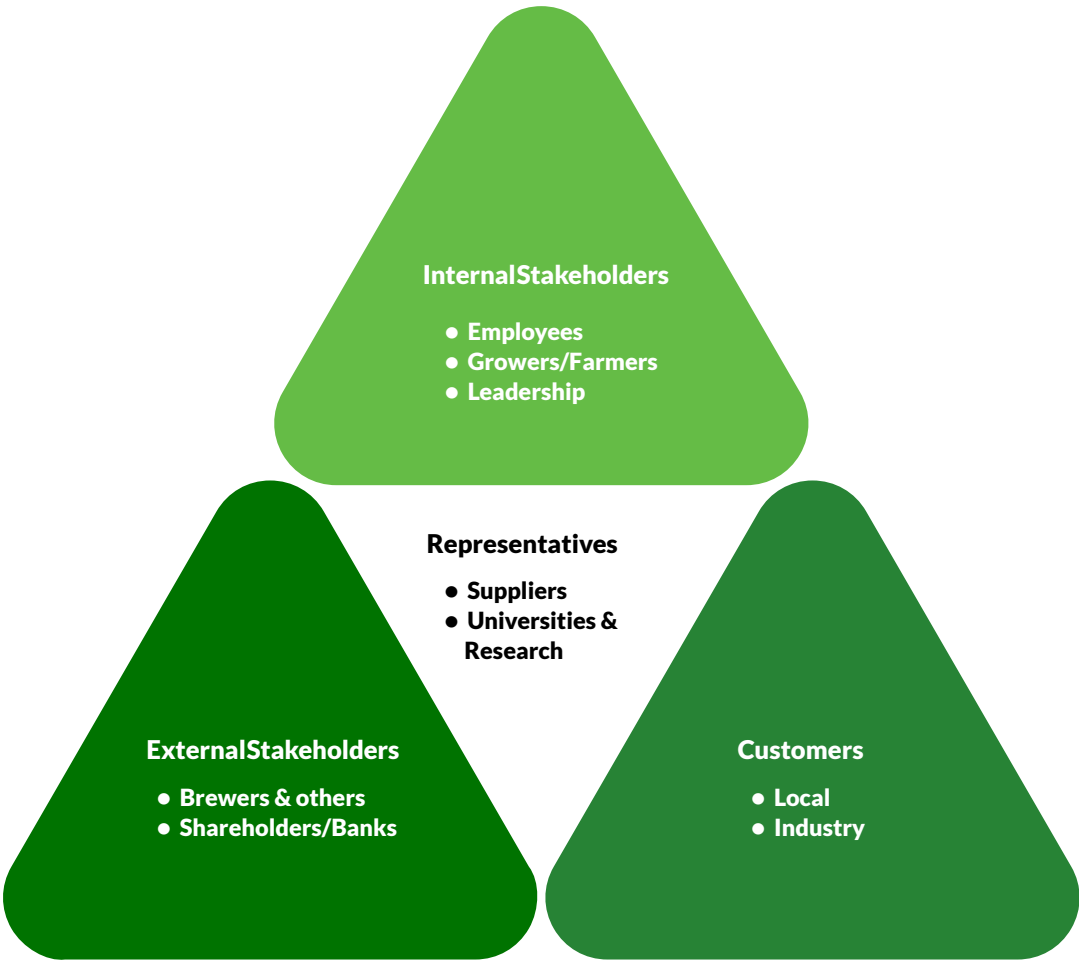
Luke Mafazy, Chief Financial Officer

Governance

Our sustainability governance and approach are guided by the needs of our customers and communities. The company empowers sustainability leadership with the CEO establishing the importance of sustainability.







All operational managers are given guidance to ensure that their facilities conform with Hopsteiner’s sustainability priorities. This includes compliance with respect to environmental standards, health and safety protocols, employee well-being and community support. Our goal is to keep pursuing governance reform to effectively develop sustainability.

We value sound and ethical governance not only for conducting our business and managing risks and compliance but as a conduit to advance sustainability. The same governance approach that has led us since 1845 can guide us to long-term value and continued resilience.



Sustainability Recognition

Our values of ethics, transparency, and corporate responsibility, together with robust governance for managing our operations, quality standards, and sustainability approach, have resulted in qualifying for the following quality certifications:

 GLOBAL G.A.P. Since 2015	<p>Global G.A.P. – GLOBAL Good Agricultural Practice (G.A.P.) establishes voluntary standards for the certification of agricultural products worldwide. This standard assures producers, suppliers, and buyers that food production at the farm and facility level meets internationally recognized best practices.</p>
 Sedex Since 2013	<p>Sedex – Sedex is one of the world’s leading ethical trade membership organizations, working with businesses to improve working conditions in global supply chains.</p>
 M Since 2010	<p>M – Certified Halal products under the supervision of the Islamic Food and Nutrition Council of America (IFANCA)</p>
 SAI PLATFORM Since 2017	<p>SAI Platform – Sustainable Agriculture Initiative (SAI) Platform brings together over 160 member companies and organizations leading the way in sustainable agriculture worldwide.</p>
 ISO 9001 CERTIFIED Since 1995	<p>ISO 9001 – ISO 9001 is defined as the international standard that specifies requirements for a quality management system (QMS). Organizations use the standard to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements.</p>
 EcoVadis Since 2013	<p>EcoVadis – The EcoVadis sustainability assessment methodology is at the heart of our Ratings and Scorecards and is an evaluation of how well a company has integrated the principles of Sustainability into its business and management systems.</p>
 Kashrut Certificate Since 2004	<p>Kashrut Certificate – Va’ad HaRabanim of Greater Seattle – Hopsteiner products are certified Kosher Parve under the supervision of Va’ad HaRabanim of Greater Seattle, underscoring our commitment to the inclusivity of different groups of clients and customers.</p>
 OTCO Since 2007	<p>OTCO (Oregon Tilth Certified Organic) – Oregon Tilth works to make their food and agriculture biologically sound and socially equitable. Their core initiatives of certification, education, and advocacy continue to shape food systems that benefit people and planet, together.</p>

Certified quality every step of the way.

Materiality and Stakeholder Engagement

Regular and open dialogue with our stakeholders is part of our ongoing operations and has facilitated this process. Our workforce and customers are critical stakeholders. Our interactions help company leadership establish Hopsteiner’s sustainability programs. We seek to use many opportunities to interact with customers in person at symposium, trade fairs, exhibitions, and on-site appointments.

We are an agribusiness, which means we are dedicated to natural resources and land stewardship. The ESG factors and material topics determined for this report were based on GRI guidance and a stakeholder engagement process (internal and external) which was led by a multi-disciplinary team tasked with providing data and insights.

We welcome the input of our customers, workforce, and other key stakeholders in our goal- setting endeavors. We strive to make our operations sustainably efficient. Based on our stakeholder engagement and materiality analysis, we have identified the following ESG material topics, with Governance encompassing topics related to GRI economic pillars:

Materiality Analysis Table

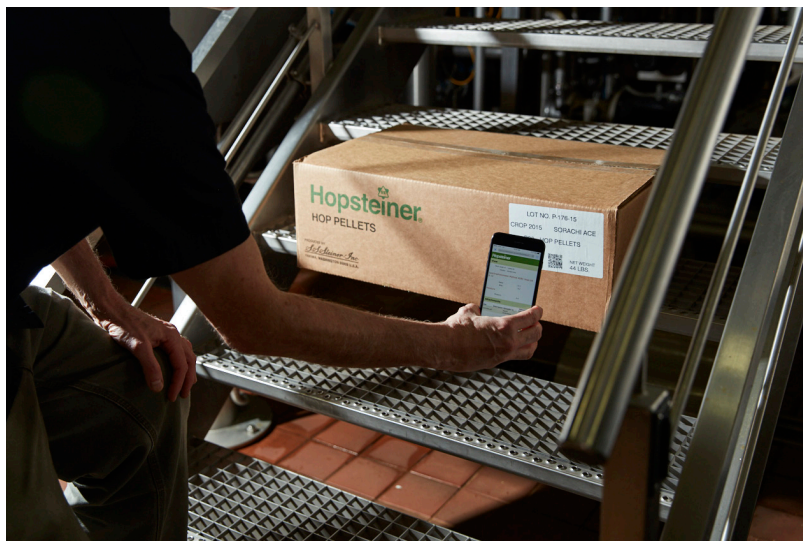
ENVIRONMENTAL	SOCIAL	GOVERNANCE
<ul style="list-style-type: none"> Climate change Water management Energy efficiency Biodiversity Waste management Packaging 	<ul style="list-style-type: none"> Health and safety Human rights Employee diversity Staff well-being Professional development Product marketing/labeling Community support 	<ul style="list-style-type: none"> Leadership approach Business ethics Standards of conduct Innovation Anti-competitive behavior Procurement practices Internal management systems Data privacy

United Nations Sustainable Development Goals (SDGs)

<p>3 GOOD HEALTH AND WELL-BEING</p> 	<p>Promoting good occupational health and safety practices throughout our entire workforce. Conducting periodic training on numerous critical health and safety aspects of our operations in multiple languages.</p>
<p>4 QUALITY EDUCATION</p> 	<p>We have programs that develop skills at all levels, including comprehensive performance management and leadership, tuition reimbursement, and other career development opportunities. We also have trainings for licenses and certification for specialized farming equipment while allowing for knowledge sharing of technical expertise and best practices with all our farmers.</p>
<p>6 CLEAN WATER AND SANITATION</p> 	<p>Investing in physical and human capital to improve our water management and water-use efficiency. These include adopting technologies such as drip irrigation, soil moisture sensors, and weather stations; and leveraging on-field expertise.</p>
<p>8 DECENT WORK AND ECONOMIC GROWTH</p> 	<p>Protecting labor rights and ensuring safe working environments (see company policies and safety measures), providing decent work and payment of living wages, and enabling career progression for both full-time and temporary workers by introducing new opportunities.</p>
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> 	<p>Innovations that enhance environmental protection and conservation. Investments in cutting-edge research and know-how.</p>
<p>10 REDUCED INEQUALITIES</p> 	<p>Hiring workers from minority groups into our operations, facilitating financial stability and, thus, helping to reduce inequalities.</p>
<p>13 CLIMATE ACTION</p> 	<p>Shrinking our carbon footprint across our operations and advancing on our journey towards science-based targets for carbon reduction in line with the Paris Agreement.</p>
<p>15 LIFE ON LAND</p> 	<p>Protecting soil health and biodiversity through land management techniques and in-situ testing across all our ranches. Prioritizing and safeguarding local wildlife at our operations, including through our pesticide management program and by taking care of protective windbreaks and natural vegetation. Moreover, providing habitat for beneficial insects and minimizing soil erosion and runoff.</p>

Marketing, Labeling, and Traceability

We have strict protocols for labelling our products. Lot numbers are assigned to all products (extracts, pellets, and downstream products). Through our ERP system, the lot number can be used to trace back to the original hop bale lots. From the hop lot number, the grower lot number identifies the farm where the hops were grown. Access to the grower information can tell us from which field a particular hop bale lot came from and what sprays / pesticides were applied to it. Additional information is available for hops received internally from Golden Gate Hop Ranches including fertilizer type and quantity, along with water consumption.



Upon receiving hop bales at our warehouses, the bales are weighed, and a crew performs an extensive inspection of the bales verifying variety, bale count, temperature and percent moisture. Samples are also taken for both for quality and pesticide analysis by our in-house labs and for later evaluation and selection by individual breweries. Washington, Oregon and Idaho regulators perform a separate inspection taking a sample of each lot for the Leaf, Stem and Seed report. Certificate of Analysis will be standardized with information for our customers. Our traceability system allows us to retrieve most relevant production data.

Path Forward

Our ongoing goal is to continue building a robust sustainability program, including the following goals:

ENVIRONMENTAL

invest and innovate towards environmental impact reductions for both our customers and our own operations

SOCIAL

expand our diversity, equity, and inclusion efforts and the workforce engagement with company sustainability approach

GOVERNANCE

bolstering our governance to more effectively manage sustainability risks and opportunities and implementing anti-corruption practices

Innovation and Research and Development

Innovation and R&D are at the core of Hopsteiner's operations, and, accordingly, key aspects of our market presence and leadership. Hopsteiner is dedicated to leveraging its scientific and research expertise in hop breeding to ensure it addresses the challenge of sustainability at the heart of the hops industry. To succeed in this endeavor, the organization has invested significant time and resources into nurturing and developing its own dedicated state-of-the-art R&D program.

Hop Innovation

Our hop breeding program is the focal point of our operations and serves as the foundation for our future goals on sustainability. Not only does our breeding program provide us with a platform to optimize yields and reduce costs, but it also opens up the path to hop varieties that enable us and our customers to continue being stewards of the environment. Our program was conceived with the goal of satisfying customer needs for increased quality and sustainability.

Critical to our efforts to foster resource efficiency is our R&D team, who tirelessly try to discover new ways to reduce fertilizer, pesticide, and water use in our cultivation of hop varieties. Leveraging tools like historical data, molecular markers, phenotyping, genome observation, and predictive analytics, we are able to breed and cultivate hop varieties that are higher yielding, more disease resistant, and less land and water intensive.

As our program continues to mature, we aim to:

- **Increase disease resistance, yield potential, while reducing water and nutrient use**
- **Supply customers with environmental product data to better baseline their impact**
- **Provide world-class hops and hop products that can reduce downstream environmental impacts without compromising performance or quality**

Through our breeding program, we reduce our lifecycle CO2 emissions by selecting for hop characteristics such as climate resilience, water- and nutrient-use efficiency, processing energy, and so forth. We continue to serve our global clientele by breeding for elite, innovative hops and climate resiliency simultaneously. We aim to reduce our dependence on natural and chemical inputs through continual genetic gain, thereby cultivating more resource-efficient hop varieties.



Hopsteiner and its global partners are well equipped for future success thanks to our dedicated and innovative breeding efforts targeted at environmental sustainability. We look forward to continuing our work of providing the industry with the world's most eco-friendly hops.



Ryan Gregory, Research Agronomist

“Recognizing the imperative of reducing our environmental impacts, we have focused our efforts on employing innovative breeding technology to develop elite, innovative hop varieties. Specifically, we have selected for novel and elite traits most sought after by brewers and for traits that are most conducive to hop cultivation and sustainability.”



Disease Resistance

Hopsteiner selects varieties for natural traits promoting resistance to powdery mildew and downy mildew, with understanding of the hop genome to counter future disease challenges. Disease resistance traits obviate some of the need for fungicide that would otherwise be required for cultivation, reducing direct emissions from applications and indirect emissions from pesticide manufacturing and chemical residue runoff. Hopsteiner’s industry-leading hop breeding molecular markers enable us to incorporate multiple resistance traits into one variety, bolstering the durability of those traits.

Higher Yields

High-yielding varieties have been key to our sustainable intensification efforts, enabling us to maintain crop yields on less cultivated land and therefore increasing our resource-use efficiency. Similarly, stable-yielding varieties exhibit less volatility in production across multiple environments, permitting yields that are more consistent and predictable. Hopsteiner prioritizes hop varieties that achieve high and stable yields to facilitate sustainable production for growers and product availability for brewers.

Nutrient And Water Use Efficiency

Fertilizer and irrigation water are two major inputs of hop cultivation that, in excess, can have negative effects on natural ecosystems. At Hopsteiner, we select for hops with greater nutrient- and water-use efficiencies, allowing us to achieve the same yields while maximizing outputs. We believe that our dedicated and innovative breeding efforts will be our catapult to future success, advancing environmental sustainability while leaving us well prepared for a world with greater water and nutrient scarcity.

Sustainable Hop Varieties

Our customer-service mission drives us to provide the highest-quality hops to reduce adverse environmental impacts throughout our value chain. While there is much work to be done in this pursuit, we are proud of the progress we have made thus far. As a result of our continued efforts, our breeding program has succeeded in producing proprietary hop varieties (shown to the right) boasting a lower environmental impact and higher disease resistance and tolerance.

The Hops of the Future

Since 1845, we have been passionate about hops and their role as the building blocks of quality products and fruitful business collaborations. We will continue to innovate proprietary hops that prioritize environmental attributes and better serve brewers, growers, and our own operations.

We will:

-  Continue to breed for greater heat tolerance and pest and disease resistance across our hop varieties
-  Integrate irrigation use efficiency into our research and innovation plan
-  Develop more mature carbon impact and sequestration analysis of hop varieties to give our customers a clear understanding of our impacts and our path forward to mitigating them
-  Continue to update and present CO2e impacts of our operations through life cycle assessment
-  Collaborate across industry to share best practices and thought leadership, such as the ongoing Hop Growers of America Carbon Sequestration research




HELIOS™

Super alpha with clean, pleasant bitterness

CARBON FOOTPRINT
~44% reduction CO2e/lb*

DOWNY MILDEW POWDERY MILDEW

Resistant **Resistant**



SULTANA™

Pineapple, pine, bright citrus

CARBON FOOTPRINT
~42% reduction CO2e/lb*

DOWNY MILDEW POWDERY MILDEW

Tolerant **Tolerant**




EUREKA!™

Black currant, dark fruits, herbal, pine

CARBON FOOTPRINT
~35% reduction CO2e/lb*

DOWNY MILDEW POWDERY MILDEW

Tolerant **Tolerant**



Lotus™

Orange, vanilla, berry, tropical fruit

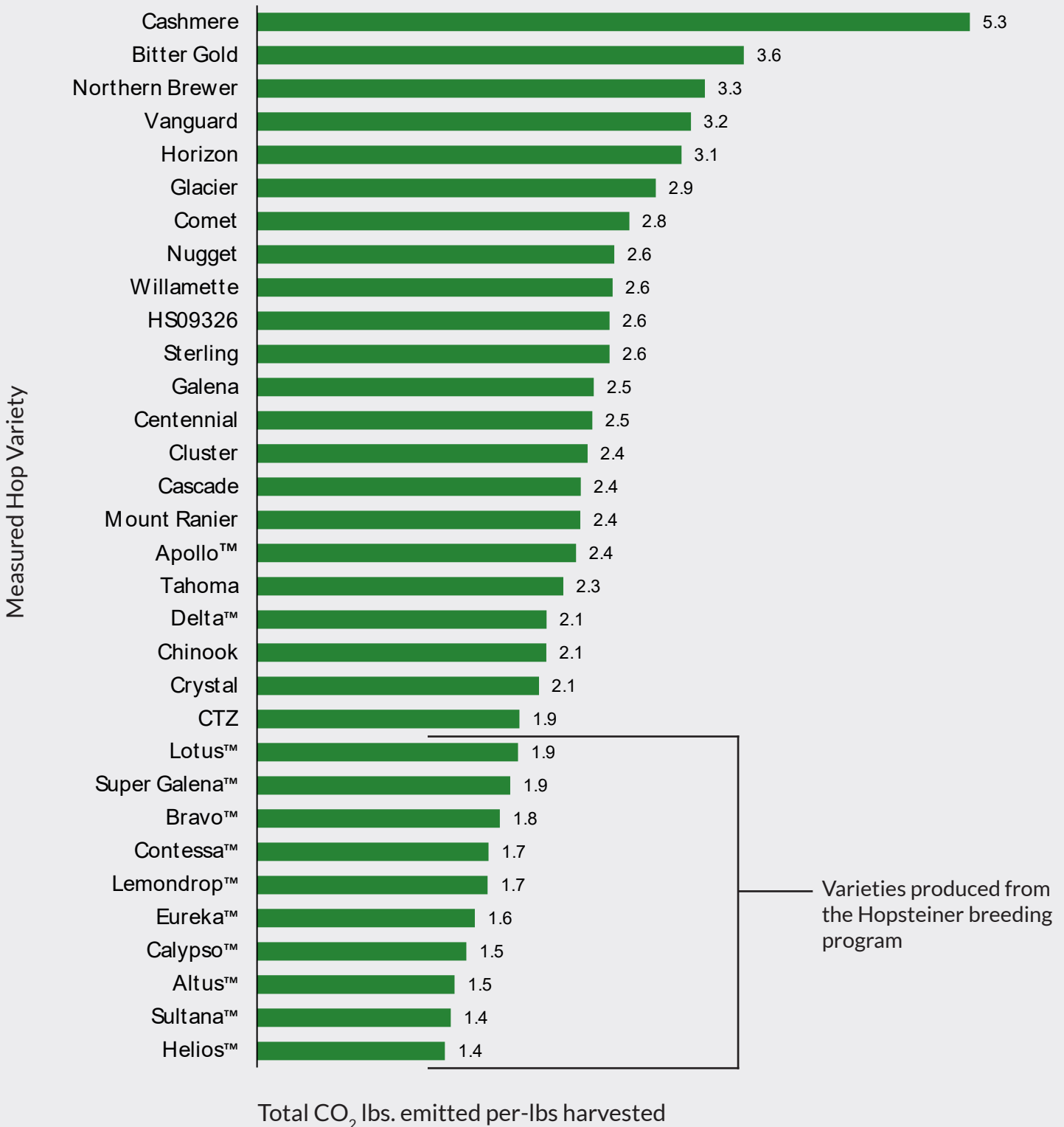
CARBON FOOTPRINT
~22% reduction CO2e/lb*

DOWNY MILDEW POWDERY MILDEW

Susceptible **Resistant**

*Our analysis compares the CO2e emissions associated with only the use of pesticides, irrigation, and fertilization applications with specific Hopsteiner hop varieties compared to Centennial hops (2.48 CO2e/lb hops).

Hop Variety Carbon Footprint Comparison



Processing Hops

The brewing industry continues to grow and innovate globally. The brewing industry has stated it is committed to reducing negative climate impacts in critical areas such as energy and water consumption, wastewater, solid waste, byproducts, and greenhouse gas emissions. At Hopsteiner, we recognize that we have a responsibility not only to mitigate the environmental impacts of our own operations, but also to work in concert with brewers to reduce their own impact.

Being in business for over 175 years has allowed us to build relationships with customers worldwide, giving us unique insight into the challenges and opportunities inherent in seeking to brew beer more efficiently while reducing adverse impacts of the brewing process. We invoke that perspective daily in our strategic research and operations, working to aid our customers in their sustainability goals.

We are focused on integrating our hop products into our sustainability efforts. Some examples of products that can reduce the environmental impacts of breweries are:

Continued investment in research and development and in our extraction, capacity will further impact our customers. Strategic use of CO₂ extraction and DSP products is shown to reduce environmental impacts in the brewing process, and we are eager to work with our customers to find the right solutions for their needs.



- Concentrated alpha acids, beta acids, and hop oils, which increase efficiency and significantly reduce the indirect impacts of shipping, storage conditioning, and byproduct waste
- Metal containers for shipping and storage of extracts, which might provide reusable packaging systems
- Extended alpha and beta acid stability, which minimizes waste and provides planning flexibility
- Standardized homogenization of alpha acid content, which provides year-over-year consistency
- Pre-isomerization of alpha acids in our pelleting and extract processes, which can lead to greater brewery yield, reducing costs
- Concentrated products, which reduce beer loss

Procurement Practices

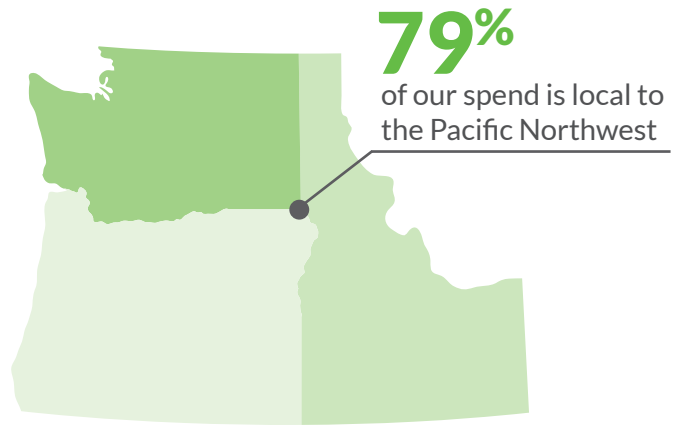
Our commitment to sustainable practices is embedded in our supply chain. We address sustainable development at the grower level, and believe it is essential that our suppliers and sourced materials conform to the same standards that we uphold at Hopsteiner.

As we integrate accountability across our entire operation, we have devised supplier selection criteria spanning safety, packaging, and equipment for vendors, particularly those supplying us raw material for hop farming and processing. In order to ensure compliance with Hopsteiner's procurement criteria, periodic supplier reviews are conducted and documented appropriately to maintain consistent quality control.

At each stage of our operations, from hop farming, to hop processing, to supply chain to customers, we constantly look for new and innovative ways to reduce our water, energy, pesticide, fertilizer consumption, and improve waste management practices.

Our Business Code of Conduct guides our governance and operations, in addition to being a key reference point for our supplier relationships. This code's core values reflect: "respect," which undergirds our opposition to discrimination and harassment in all forms; "responsibility," including to all indirect stakeholders, underlying our commitment to human rights; "trust," which underscores our opposition to corruption, bribery, and other unethical conduct; "inclusivity," which ensures that all material considerations are taken into account, including DEI as well as privacy and data protection; and "effectiveness," highlighting our commitment to sustainable operations and the efficient use of resources while positively impacting our workforce and wider society.

We value and are committed to Local Procurement, doing our part to contribute to the economic growth and well-being of the Northwestern Pacific region we operate in.



A majority of our operations are based in Idaho, Oregon and Washington, where local spending accounts for about 79% of our total expenses on supplies and services. We support the economic welfare of the communities in this region and in turn benefit from timeliness and quality of services.



Environmental

Like most agribusinesses, hop cultivation and harvesting have a carbon footprint that stems from their utilization of natural resources. Hopsteiner understands the responsibilities inherent in being a leading hops producer and seeks to be a pioneer in sustainable agriculture. Accordingly, we are committed to monitoring and minimizing any adverse environmental impacts borne out of our operations through research, innovation, and process efficiencies. Our breeding program is an engine of innovation that provides a pathway for our customers to reduce their carbon footprints while enabling us to create sustainable, environmentally conscious, value-added products.

For years, we have also made it a point to develop trade practices that are economically, environmentally, and socially responsible and to encourage our growers and customers to partake in our collective responsibilities to each other. To that end, we are registered with EcoVadis and Sedex to ensure the transparency of our sustainable agriculture practices and build the level of trust required to foster the level of engagement and stakeholder participation that underpins our business. We are a family business focused on continuity.

At Hopsteiner, we recognize that we have a critical role to play in safeguarding our planet. Hence, tackling issues such as climate change, water management, energy efficiency, biodiversity, waste management and packaging is not only material to our business objectives, but also paramount to the conservation of natural resources at large. Now, and in the future, we are committed to making the requisite investments in our operations and our people in order to do so. We will also continue working to review our activities to identify new solutions and approaches to help us conserve the Earth's natural resources, and in doing so allow our people and stakeholders to persist and continue to share in the success we build together.

We continuously review our activities so that we can integrate new approaches to conserving natural resources. These principles apply throughout our organization, from back office to the field.

HOPSTEINER PRIORITIZES INTEGRATING SUSTAINABLE PRACTICES



Sustainable Agriculture

A healthy ecosystem is critical to the long-term viability of the land we use, the communities we inhabit, and the hops we produce. Recognizing that agriculture is a natural resource-intensive industry, Hopsteiner aims to leverage our deep knowledge and expertise to reduce our consumption of natural resources and chemical inputs. We prioritize soil health and biodiversity through land management techniques and in-situ testing across all our ranches.



Agricultural practices aimed at building soil organic matter and improving soil structure are the first step toward remediating erosion and reversing the soil's attendant loss in productivity.

We mulch compost, hop waste, and cover crop residue while planting triticale to consume excess nitrogen and provide habitat for beneficial insects.

We avoid driving farm vehicles on wet soils in order to reduce compaction and we employ drip irrigation on all our farms, minimizing soil erosion and runoff.

Weeds are controlled primarily through tilling, contract herbicides, and residual pre-emergent herbicides, all of which are kept to a minimum to allow non-competitive weed growth and therefore beneficial habitat and soil cover.



“Healthy soil and ecosystems are one of our guiding principles at Hopsteiner. I’m driven daily to identify ways to drive higher yields with less impact on our land.”

Andres Pascal, Agronomist

Biodiversity

Healthy ecosystems are vital to human health and well-being, providing services like clean air and water and playing a critical role in global food security. We strive to achieve balance with nature on all fronts through our sustainable agriculture practices out of recognition and respect for nature and the biodiversity and ecosystems comprising it.

We safeguard local wildlife at our operations. Predators such as coyotes, hawks, owls, and snakes are important for pest control efforts targeting meadow voles and gophers; we have, for example, installed kestrel houses at our ranches in the vicinity of nest sightings. Our Integrated Pest Management (IPM) program certifies our safe and efficient use of pesticides, which not only protects wildlife, but also allows them to thrive. Finally, windbreaks and natural vegetation on the borders and headlands provide an additional layer of habitat for many other forms of wildlife, together laying the groundwork for a complex farm ecosystem.



Sustainability in Action

In-Situ Soil and Hop Petiole Testing

We conduct soil and hop petiole testing in a regular and transparent manner that enables us to optimize our use of soil nutrients, thereby mitigating water pollution and indirect greenhouse gases (GHG) emissions.



Grower Program

Our team takes a collaborative approach to our partnerships, providing guidance and education to other growers to promote high-quality professional practices. Through our Grower Portal, our team of experts share their expertise and other relevant information, fostering collaboration on sustainable practices and further solidifying relationships that in many cases have lasted for generations.

Biomass Composting

We utilize leaf and stem waste in our fields to increase soil organic matter levels and lower nutrient requirements for the next season. Our combines process the hop plants, leaving stem waste behind in the field. This reduces the overall weight of transport to the processing facilities, avoiding an estimated 260 metric tons CO₂e annually.



Crop Cover

Our farms use cover crops such as wheat, triticale, or Sudan grass, which not only serve to reduce soil erosion and nutrient loss, but also contribute to climate mitigation; by increasing soil organic matter levels, cover crops facilitate soil carbon sequestration, pulling carbon from the air and storing it underground. The use of mustard mixes also enables the biofumigation of soil-borne pests and weeds, reducing the synthetic pesticide load.

Climate

Adapting to changes in the climate and lowering our carbon footprint are an important challenge for our business. As an industry leader, our role is to support our people, farmers, communities, and customers in these efforts in environmental impact, social well-being, and economic resilience. Accordingly, Hopsteiner is working to establish ambitious science-based targets for carbon reduction.

At Hopsteiner, we share the concerns of our stakeholders and the wider public about the risks of climate change. However, we are equally excited about the opportunities that a challenge of this scale presents to our company.

In our business, there is no contradiction between climate mitigation and our bottom line; the same sustainable agriculture practices that serve to alleviate the effects of climate change and enhance our economic resilience will also be what enhance the quality and varieties of the hops that we breed. This path we are embarking on will give rise to benefits along our value chain, from farmers to consumers who drink the beers made with our hops.

This outcome would be our triple bottom line, and so we look forward to meeting the challenge of climate change head on.



GLOBAL G.A.P.

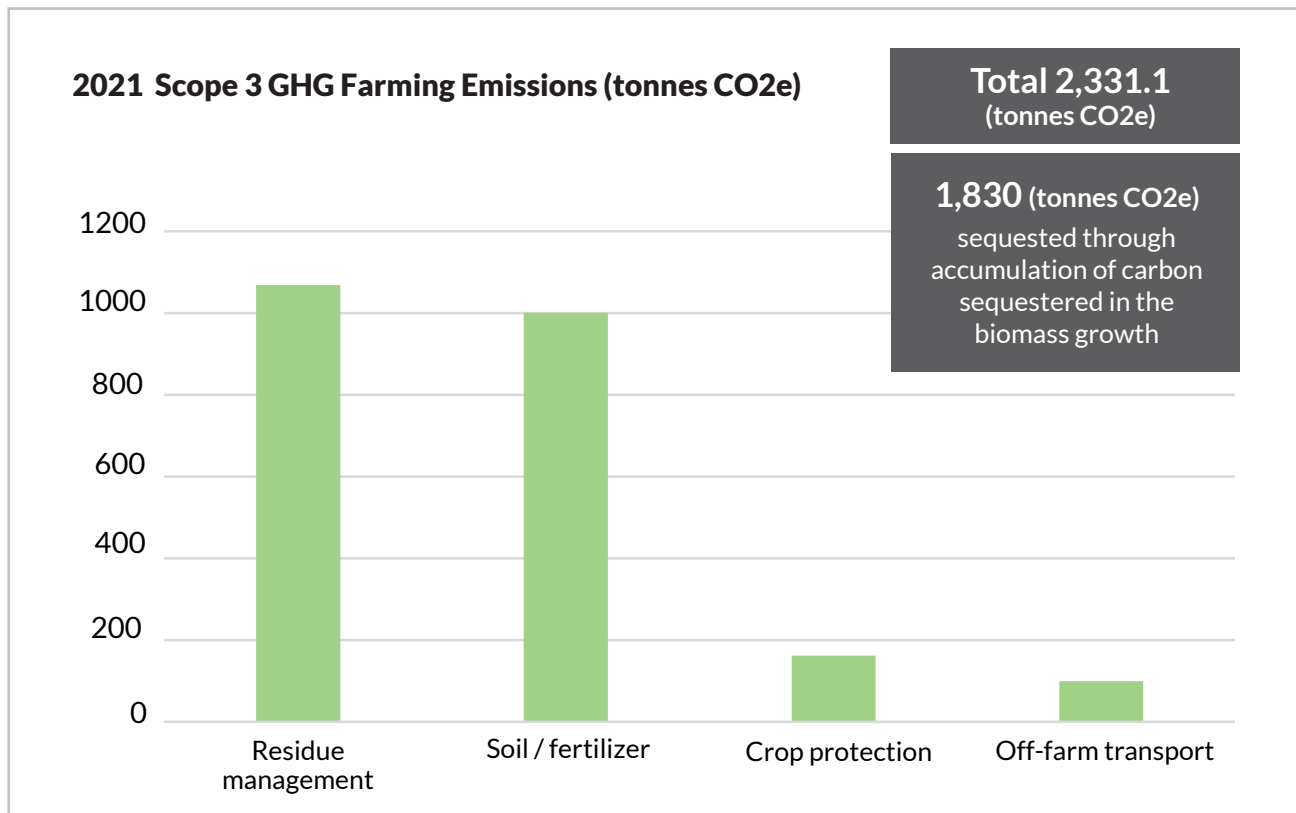
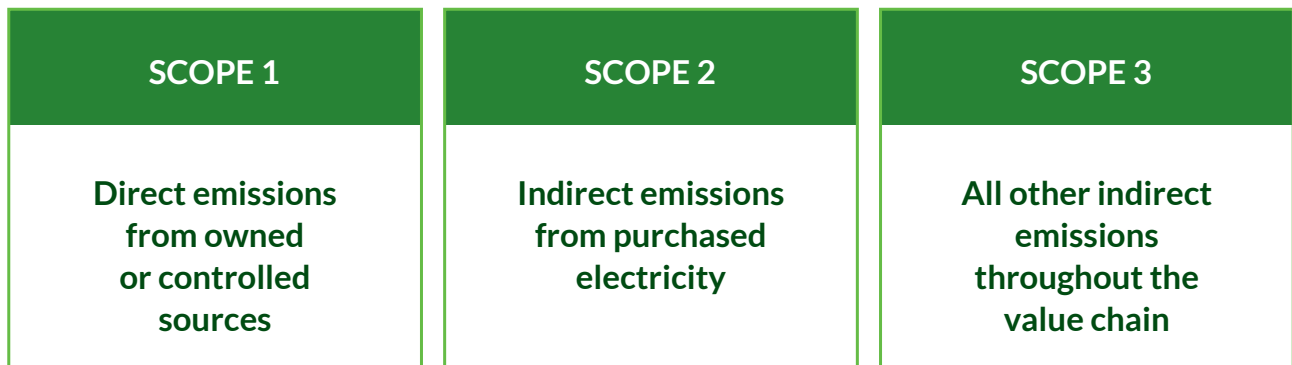
Hopsteiner is proud to be GLOBALG.A.P. certified, a testament to our commitment to sustainability across multiple functions in our organization. Achieving certification requires agriculture producers to implement robust record management systems and improve their fertilizer- and pesticide-use efficiencies, two factors that are in line with our commitments to transparency and sustainable agriculture.



Emissions

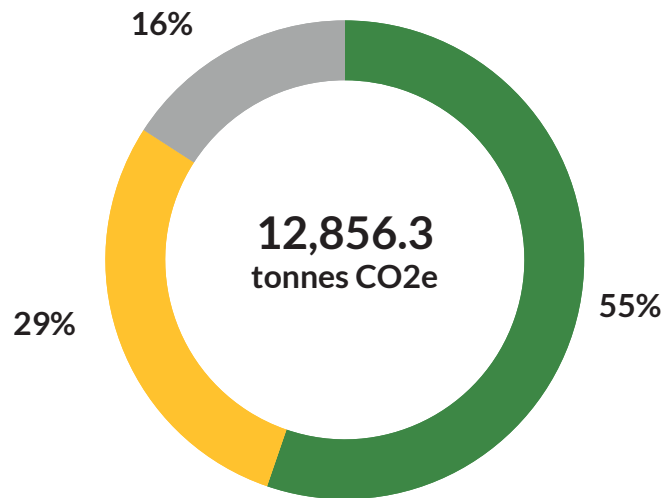
We conducted an emissions analysis to develop a preliminary understanding of our carbon footprint. Our emissions estimates for 2021 are in line with industry expectations. As our reporting program matures and expands, we will establish a baseline that underpins our climate strategy and future goals.

Emission Scope Definitions



2021 Greenhouse Gas (GHG) Emissions Summary

- SCOPE 1 GHG EMISSIONS
- SCOPE 2 GHG EMISSIONS
- SCOPE 3 GHG EMISSIONS



GHG Emission Intensity (tonnes CO₂e)/(per ton hop harvested)



Note:

1. Emissions analysis for Steiner & HECA was conducted through the 'GHG Emissions Calculation Tool' developed by the Greenhouse Gas Protocol (GHG Protocol).
2. Emissions analysis for GGHR was conducted through the 'Cool Farm Tool' (CFT) backed by the Cool Farm Alliance and developed in accordance with the GHG Protocol.
3. As our emissions estimates mature, we expect scope 3 to be a greater part of our total impact.

2021 Emissions use specific to Pelletizing

Emissions Intensity (tonnes CO₂e)/(hops processed-pellets,lbs)



2021 Emissions use specific to Extraction

Emissions Intensity (tonnes CO₂e)/(hops processed- CO₂+DSP, lbs)



Energy (Electricity and Fuel)

Our energy consumption is comprised of electricity and fuel use. Energy use in our farming operations derives mainly from kiln burners, water pumps and balers. Most of the energy use in our processing operations, meanwhile, are from pressure pumps and mechanical equipment (conveyor belts, etc.) In both operations, various fuels are used to power trucks, forklifts, and company vehicles.

Sustainability in Action

Our energy conservation policy outlines our efforts to optimize our consumption of energy from non-renewable resources in an iterative cycle and minimize their adverse environmental impact. Past improvements include replacing all hop trucks with high-efficiency diesel trucks, using combine harvesters exclusively which reduces fuel consumption via less truck trips, switching all starters to variable frequency drives (VFD), and upgrading to LED lighting in all our facilities. We utilize NuPoint tracking devices in our combines to monitor and track activity and idle time. Units can be easily transferred to other vehicles depending on the harvest operations.

Kilning, the process of dehydrating hops to improve storage stability, represents the most energy-intensive process through the use of propane and natural gas use in our operations. However, it is also the lowest-hanging fruit in our emission reduction efforts, constituting a gap where innovation and investment can play an important role. We have also made significant strides over the years to upgrade our kilning equipment, including converting to all-natural gas or LPG gas burners, utilizing temperature and moisture sensors to manage air flow, and installing wall insulation to reduce heat loss energy transfer into cement walls. The construction of our newest pilot kiln in Yakima has provided us with a platform from which to innovate toward novel emission reduction solutions.

In the past five years, we have invested in new high-efficiency boilers at our hop extract plants and have also enhanced our extraction plant capabilities. Soft start motors have been installed to lessen the electrical load demand of large motors in milling rooms. Our warehousing R-22 refrigeration systems are being converted to utilize more environment-friendly refrigerant materials, and about 95% of all lighting across our hop extract plants has been converted to LED lighting.

We will continue to evaluate energy-use reduction and operational improvement opportunities, including the installation of solar panels or wind turbines at our farms.

INVEST

Invested in more energy-efficient air conditioning units in cold storage for Steiner pellet plant

CONVERT

Converted to all-natural gas or LPG gas kiln burners, maintaining hop drying times at higher efficiency

RECOVER

Return 98% of CO₂ lost during the extraction process back into the extraction system through CO₂ recovery process

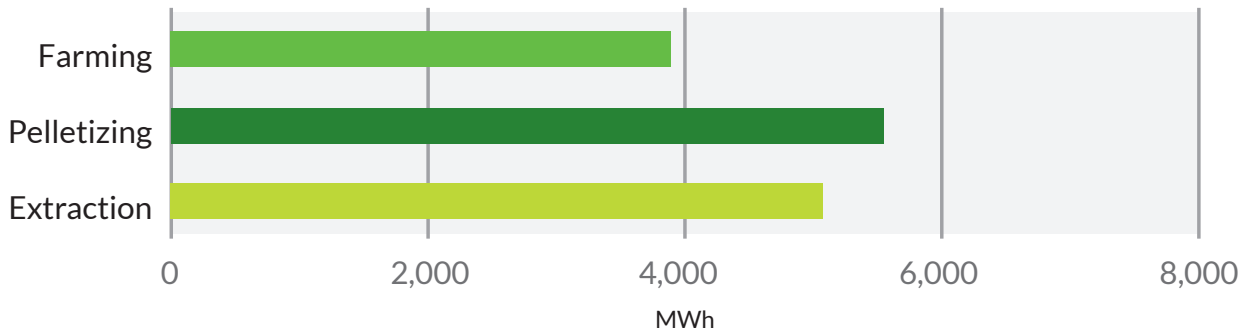
Kiln Innovation

Hopsteiner has invested into kiln operations to reduce drying times and energy consumption without compromising hop quality. This investment included the construction of a pilot kiln to test new innovative drying strategies.



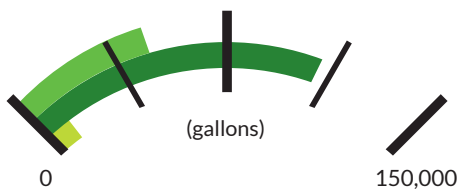
2021 Electricity Usage

Electricity usage has been reduced by 15% over the past 3 years.

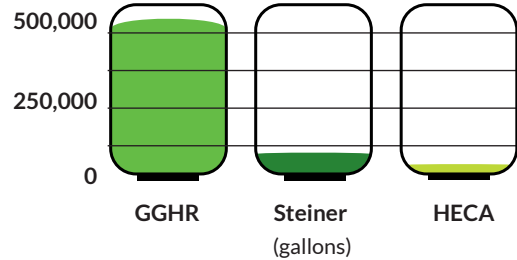


2021 Fuel usage

● GGHR GAS ● GGHR DIESEL ● HECA GAS



2021 Propane usage



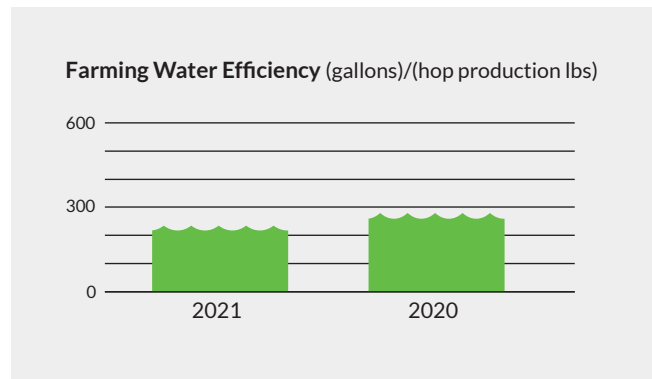
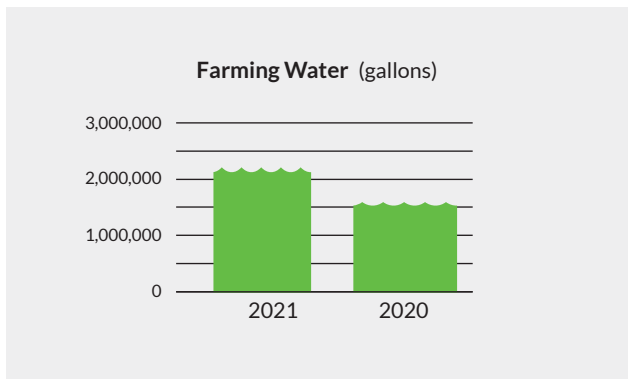
Water Management

Hopsteiner understands that water is the world's lifeblood. We are therefore committed to playing our part to mitigate water scarcity by improving the efficiency of our own water usage and innovating hop products with lower water requirements.

The bulk of our water is consumed for irrigation purposes by our farming operations. Winter and summer weather conditions dictate our irrigation use even though the growing season is during the spring and summer only. Over time, we have invested in physical and human capital to improve our water management and water-use efficiency. These include drip irrigation, soil moisture sensors, weather stations, and on-field expertise.

Water consumption increased in 2021 due to the so-called heat dome in the Pacific Northwest that caused one of the hottest years on record. However, overall water intensity per harvested pound of hops on GGHR actually decreased from 2020 to 2021, validating the emphasis on efficiency and investment in our irrigation practices.

2021 Water usage



Lotus Irrigation Deficit Trial

During the summer of 2021, the Yakima region experienced significant drought stress. We leveraged the situation and turned it into an opportunity, taking advantage of the weather conditions to test the drought tolerance of our Lotus hop variety.

The trial showed a minimal yield decline of 12% despite a 36% reduction in the plant's water availability – validating our continued research into breeding world's most eco-friendly hops.

Sustainability in Action

We utilize temperature monitoring sensors to optimize irrigation applications resulting in increased water-use efficiency.

These technologies prevent over-irrigating, an inefficient practice that can promote increased disease vulnerability, impacting crop health and increasing the need for fungicides.

Drip irrigation increases water-use efficiency by nearly 80% in addition to minimizing runoff¹. Our farms have utilized drip irrigation for over 30 years.



¹“The Way We Irrigate Can and Should Make a Difference - Earth-Kind® Landscaping Earth-Kind® Landscaping.”

Material & Waste Management

We have built our business on responsible practices and principles of sustainable agriculture, which drive our careful use of material and packaging resources. Furthermore, we remain committed to driving efficiencies where possible.

OUR CO₂ RECOVERY SYSTEM RECUPERATES 98% EMISSIONS BACK INTO THE EXTRACTION PROCESS

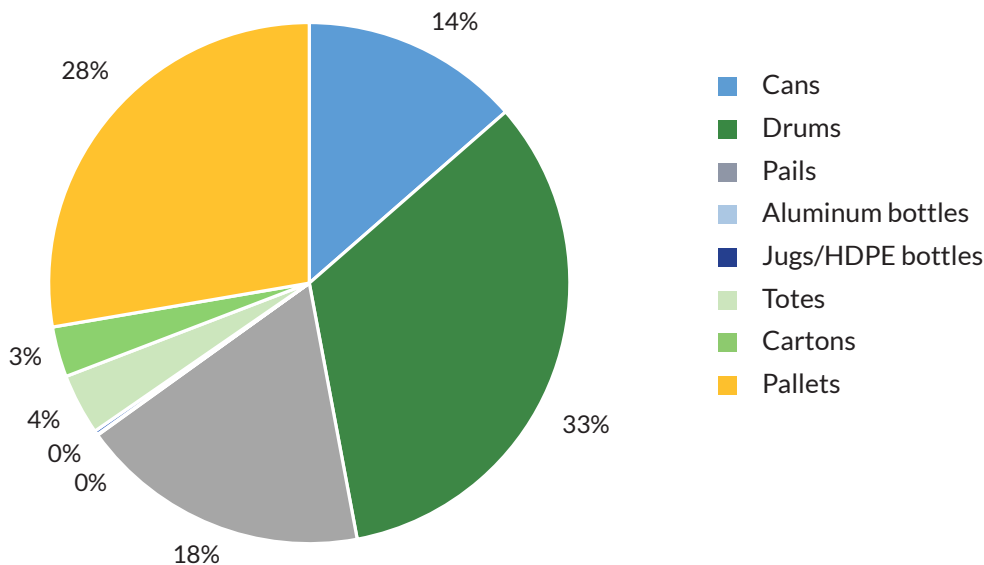
We continue to pursue efficiencies in our methods of storing, marketing, and processing raw materials.

Some products are more material intensive than others. For example, our packaging use is nearly linear with our total extract production. These extract products require material inputs for processing such as CO₂ and sulfuric acid. While hop extracts require more material inputs during the process and indirectly increase our environmental impact, they can reduce the impact downstream for brewers.

Our team works to reduce waste in our processes and identify vendors for recycling or otherwise handling any waste that we generate. Where water regulations apply, such as for pesticides and fertilizer containers, we work with certified facilities and handlers to prevent contamination risk. We segregate our waste stream to enable the recycling of plastic pesticide containers and cardboard. We do not permit the burning of dry waste products, and non-recyclable waste materials are disposed of through specialized waste disposal contractors or landfill sites; an oil recycling service picks up our waste oil and used filters, while our lab waste is handled per state and federal guidelines.

Over 50% of our packaging by weight are different size containers for our extract production (as shown below).

2021 Packaged Consumable % by weight





Our People and Community

Our passion for hops and beer is only matched by our passion for our people and community. Our global workforce has been consequential to our success since 1845 and will always be the core of our business. With expertise spread around the globe – all anchored by a spirit of amity and camaraderie – Hopsteiner has been committed to principles of sustainable development long before the term was coined. Our respect for nature and people compels us to support and enable growth in one another.

With our economic reach across the globe, our common denominators are our people and surrounding communities. They are stakeholders to our success. A safe and happy workplace that empowers and motivates employees is essential to both their well-being and the company's long-term health. We are committed to doing everything in our power as an industry leader to foster their development and ensure their physical safety and, in doing so, effect positive, meaningful careers and lives.

We have a hunger for innovation in the name of improving and differentiating ourselves as a business, which is reinforced by our workforce and suppliers who share our passion, values, and vision.

At Hopsteiner, our investments in human capital will continue to be the foundation of our success. We are proud of our reputation for fostering a fulfilling and rewarding workplace, which includes comprehensive benefits, health and safety, and a respect for and collaboration with the individual.



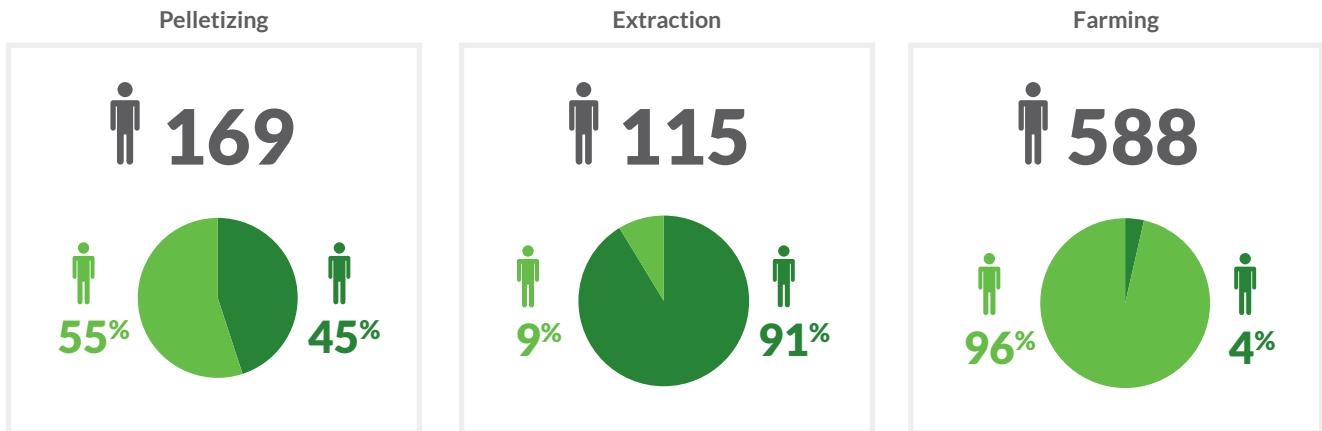
We provide career development opportunities and training programs for fostering our workers' personal and professional growth, including in leadership, communications and comprehensive performance management.

The integration of migrant workers through our seasonal and H-2A (Temporary Agricultural Employment of Foreign Workers) hiring program into our operations has also had direct and indirect residual effects on economic growth. As we continue this trend, we not only contribute to employment and GDP growth; we also contribute to the sustainable economic development of our local communities.

“Hopsteiner has and continues to support our personal endeavors to make a difference in our communities, such as The Lovibond Project, a nonprofit I am proud to be on the board of. The project’s beer industry-focused mission is to recruit and support people of color who are traditionally underrepresented in the ranks of brewery professionals.”

Heather McReynolds, Northeast Craft Sales

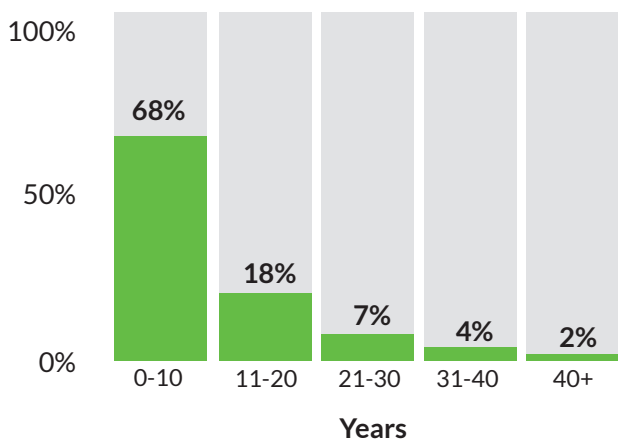
2021 Employee Headcount and Contract Type ■ Permanent employees ■ Seasonal & H-2A employees



2021 Employee turnover



2021 Length of stay



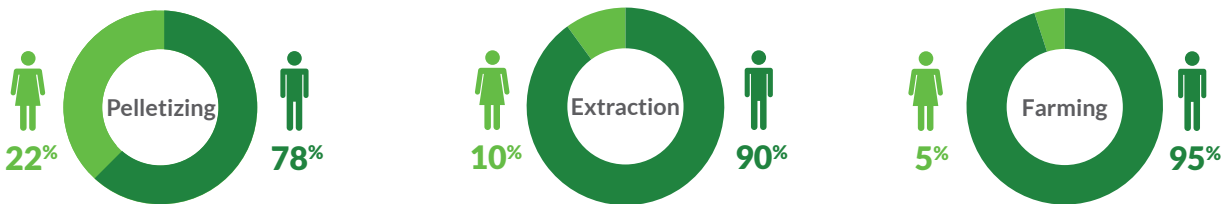
- Permanent employees are non-seasonal or H-2A employees
- Seasonal employees are non-H-2A hourly employees that are brought on for harvest/production related work
- H-2A temporary agricultural program allows agricultural employers who anticipate a shortage of domestic workers to bring nonimmigrant foreign workers to the U.S. to perform agricultural labor or services of a temporary or seasonal nature

Diversity, Equity, and Inclusion

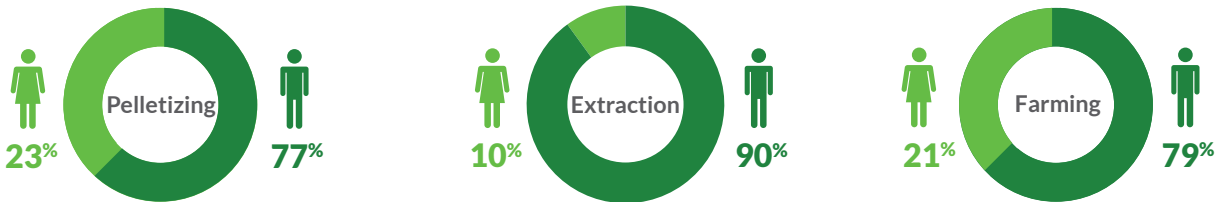
2021 Gender Diversity

■ Percentage of women ■ Percentage of men

Women in permanent workforce

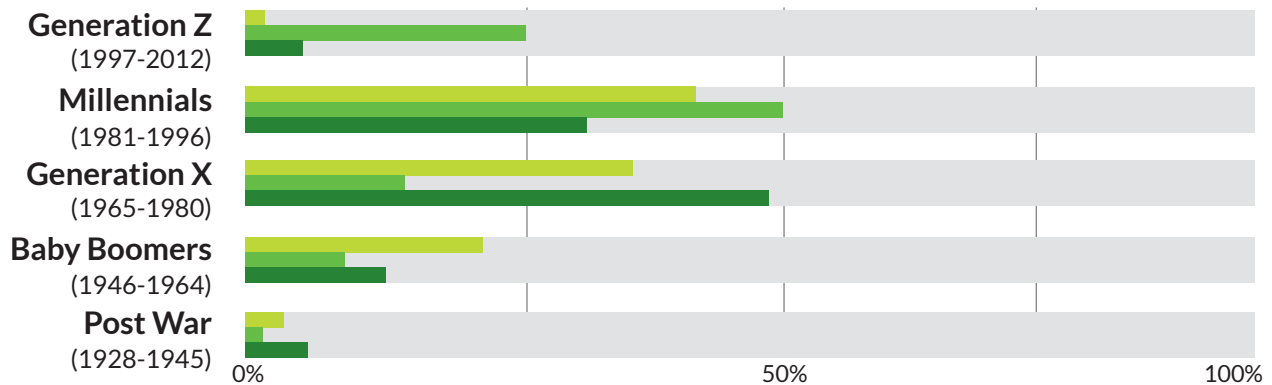


Women in Seasonal & H-2A workforce



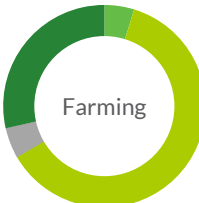
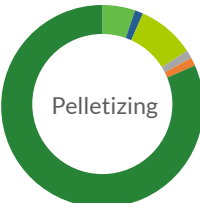
2021 Age demographics

■ PELLETIZING ■ EXTRACTION ■ FARMING



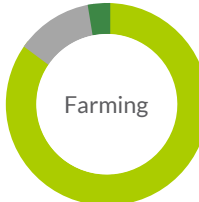
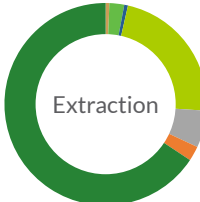
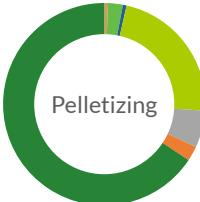
2021 Ethnicity demographics

Permanent workforce



- American Indian/Alaskan Native
- Asian
- Black/African American
- Hispanic/Latino
- Native Hawaiian or Pacific Islander
- Not Defined
- Two or more Nationality
- White/Caucasian

Seasonal & H-2A workforce

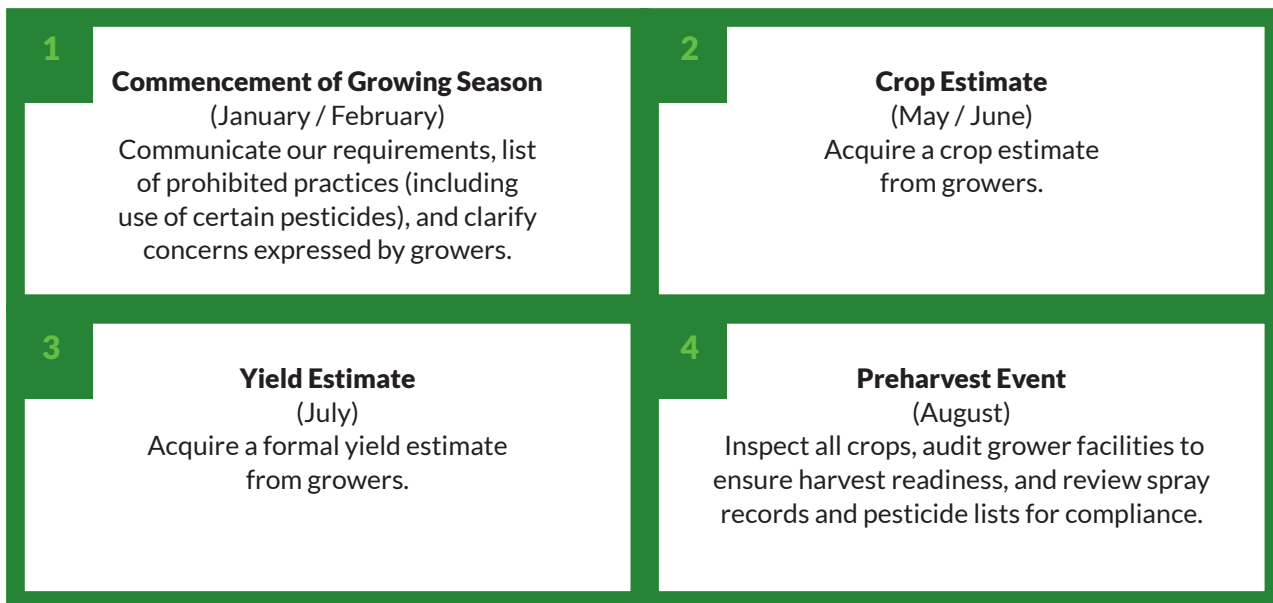


Our Farmers and Grower Program

Our hop ranches are one of our most important assets. Our hop growing operations also include our breeding program and account for a large share of all hops marketed by Hopsteiner.

The hop industry as a whole is rapidly moving from publicly bred hops to proprietary varieties. Our innovative, science-driven breeding program has produced proprietary varieties that are of strong agronomic quality. These varieties lead to savings on pesticide costs, growers of our varieties benefit operationally and financially (less water, pesticides, and fertilizers), while the brewing industry benefits from increased quantities of high-yielding and disease-resistant hops in the market.

We engage formally with our farmers on four different occasions:



Farmers entering into contracts with us receive payment for their produce at the end of the harvest season

“At Hopsteiner, we are a family. We cherish the relationships that we share with our growers and consider it our moral responsibility to fulfill our commitments. If you sign a contract with us, you can rest assured that it will be honored.”

William Roy, Grower Relations



“The Hopsteiner hop varieties display strong agronomic qualities overall. At CLS farms, we planted a few different Hopsteiner genetics into a piece of older ground that other hops were struggling with, and I expect that Sultana will break the yield record for the yard in its baby year. This advantage in agronomic quality helps us keep older hop ground in production rather than looking to fresh soil”.

Eric Desmarais, CLS Farms

Hopsteiner's operating model is inspired by GLOBALG.A.P., and over the years we have seen significant upside in both resource- and product-based efficiencies. Considering the advantages, and to strengthen our own commitment to sustainability and grower partnerships, we aim to have all our growers become GLOBALG.A.P. certified by 2025.

We remain steadfast in our commitment to our farmers, recognizing the arduous nature of their work and the value they bring to our company as crucial components of our value chain and as individuals we count as family. We value long-standing relationships based in mutual growth and trust; anyone partnering with Hopsteiner can expect nothing less.

Health and Safety

The health and safety of our workforce are paramount. Hopsteiner complies with all applicable local, state, and federal health and safety regulations. We rely on our workers, who must adhere to these regulations and ensure that work areas are safe and free of hazardous conditions to help us maintain a safe working environment.

Hopsteiner is adding ~2-4 newly licensed pesticide applicators each year to ensure safe and environmentally responsible use.



“One of the things I enjoy is being able to see our employees go home without injury or hear about how what they’ve learned they practice at home taking safety ownership. I try every day to ensure all employees have the opportunity to learn, practice, and apply safety into their profession of choice while helping create a safe workplace.”

Ray Rivas, EHS Manager

Investment in Safety

Spent Mill Project

We have installed improved dust containment systems (such as bag houses, spark detection, and flamesuppressors) with modern engineering calculations to mitigate the dust explosion risk associated with spent biomass for all botanical materials processed through our CO2 extraction facility. This also has led to customers receiving a greater quality spent pellet.



Professional Development

At Hopsteiner, we are strong proponents of investing in human capital. We are proud to be known for our rewarding and fulfilling work environment, priding ourselves on meaningful experiences and career development opportunities. This commitment includes programs that develop skills at all levels, from comprehensive performance management and leadership training, to career development opportunities and tuition reimbursement and more.

We believe in cultivating excellent relationships with our personnel and are committed to promoting optimal working conditions, competitive wages, open communications, the involvement of workers, and opportunities for both personal and professional development. Our reputation is the product of the loyalty, commitment, and efforts of our employees. We look to our employees for ideas on how to improve all areas of our business -- customer service, safety, efficiency, and professional development.



“My favorite thing about working at Steiner is the incredible opportunity the company has given me for growth and advancement. They’ve seen my potential and encouraged me to develop it by trusting me with increasing responsibility. I’ve been with the company for two years and have had tremendous personal and professional growth during this time “

Yesica Florez, Export Coordinator

Community Engagement and Social Impact

We value community support and bringing people together just as beer does. Therefore, we actively pursue opportunities to engage and give back to the communities we serve in meaningful ways.

Our past contributions include:

Volunteer-a-thon

Donations to the Junior League of Yakima, an organization of women committed to promoting voluntarism, unlocking the potential of women, and improving the community through effective action and the leadership of trained volunteers. The donation went toward sponsoring a wellness home for youth who have been diagnosed with chronic illnesses. We also provided volunteers to work alongside league members at local non-profits to raise funds for the betterment of the community.

Madison House Community Youth Center

Private donations to the Center in Yakima, in accordance with the organization's mission to help youth between the ages of five and 20 with their academics and in nurturing a sense of personal responsibility and character growth.h.

Habitat for Humanity

Volunteering to build affordable housing in accordance with the organization's mission to eliminate substandard housing and homelessness worldwide by making adequate, affordable shelter a matter of conscience and action.

Pink Boots Society (PBS) Scholarship

Provided funding to the Yakima Chapter towards the PBS Hop Industry Scholarship – an exclusive, immersive hop industry scholarship opportunity for women in brewing. These scholarships allowed recipients to visit the Yakima Valley during the 2022 hop harvest season and attend workshops on topics such as hop breeding and processing, farming practices, hop processing, marketing, hop-forward brewing, and more.

Eclipse Summit

Hopsteiner was invited by Anheuser-Busch to participate in the launch of the Eclipse summit. The Eclipse summit was conceived by the team at Anheuser-Busch as a forum for driving collaboration throughout supply chains with the shared goal of reducing carbon emissions.



Appendix

Data and Methodologies

All data presented in this report are estimates and were done in good faith but were not independently verified unless otherwise stated. As our sustainability reporting matures, we expect to have our environmental and social data independently assured by a third party by appropriately designated standard.

To calculate our GHG emissions, a key facet of our overall environmental impact, we adhered to the GHG Protocol Corporate Standard (GHG protocol) definitions of Scope 1 and 2 Carbon dioxide equivalent or CO₂e. Per the United States Environmental Protection Agency, CO₂e is simply the combination of the pollutants that contribute to climate change adjusted using their global warming potential.[1] We utilized the GHG Protocol methodology to calculate Scope 1 and 2 emissions for Steiner and HECA. For GGHR emissions, we utilized the Cool Farming Tool (CFT), “a decision support and engagement tool that [has] enable[d] farmers and supply chain actors since 2010 to benchmark and assess their [GHG] emissions and the environmental impacts of their agricultural activities. [2]” The CFT provides emissions assessments that abide by the Product Life Cycle Accounting and Reporting Standard (GHG Protocol for products), including its definition of Scope 3 emissions.[3] Scope 3 emissions, including those originating in the chemical inputs of our farming operations, will account for a significant share of our footprint.

Notes:

- Scope of emissions analysis:
 - o Steiner & HECA - electricity, natural gas, propane
 - o GGHR - electricity, diesel, natural gas, propane, fertilizer and irrigation water
- Corporate headquarters in NY was not included in analysis for Steiner
- Carbon Stock Changes is the estimated accumulation of carbon sequestered in the biomass growth. This is estimated through the CFT.

[1] <https://www.epa.gov/moves/how-do-i-get-carbon-dioxide-equivalent-co2e-results-nonroad-equipment>

[2] “Farmer Interviews: The Cool Farm Tool as an Enabler of Regenerative Agriculture | Cool Farm Tool.”

[3] “Frequently Asked Questions | Cool Farm Tool.”

GRI Index

Statement of use	Hopsteiner has reported the information cited in this GRI content index for the period January 1, 2021 to December 31, 2021 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION
GRI 2: General Disclosures 2021	2-1 Organizational details	About Hopsteiner
	2-2 Entities included in the organization's sustainability reporting	About this Report
	2-3 Reporting period, frequency and contact point	About this Report
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Our Approach to Sustainability > Materiality and Stakeholder Engagement
	3-2 List of material topics	Our Approach to Sustainability > Materiality and Stakeholder Engagement
	3-3 Management of material topics	Environmental Our People and Community Our Approach to Sustainability > Governance
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Our Approach to Sustainability > Procurement Practices
	302-1 Energy consumption within the organization	Environmental > Climate > Energy
GRI 302: Energy 2016	302-3 Energy intensity	Environmental > Climate > Energy
	302-4 Reduction of energy consumption	Environmental > Climate > Energy
	302-5 Reductions in energy requirements of products and services	Environmental > Climate > Energy
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Environmental > Water Management
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Environmental > Sustainable Agriculture > Biodiversity
	305-1 Direct (Scope 1) GHG emissions	Environmental > Climate > Emissions
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	Environmental > Climate > Emissions
	305-3 Other indirect (Scope 3) GHG emissions	Environmental > Climate > Emissions
	306-2 Management of significant waste-related impacts	Environmental > Material & Waste Management > Waste
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Our People and Community > Our People
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Our People and Community > Our People
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Our People and Community > Community Engagement and Social Impact

100% RECYCLED MATERIALS USED RESPONSIBLY