

 AppHarvest
The background of the entire page is a photograph of a greenhouse filled with tomato plants. In the foreground, a woman with blonde hair, wearing a blue shirt and black gloves, is reaching up to harvest red tomatoes from a vine. Other workers in blue shirts are visible in the background, also working with the plants. The greenhouse structure is visible at the top, and sunlight filters through the glass panels, creating a bright and airy atmosphere.

FIGHT THE FOOD FIGHT

2021 SUSTAINABILITY REPORT

WHY WE NEED TO FIGHT THE FOOD FIGHT

The United Nations expects the global population to surge to nearly 10 billion by 2050,¹ creating many more mouths to feed and putting more pressure on natural resources. In addition, climate and labor concerns, supply chain issues and the COVID-19 pandemic have forced governments, scientists and businesses to reassess how we feed the world.

Water availability: More than 70% of the world's fresh water is used for agriculture.²

Biodiversity: 52% of agricultural land is already moderately or severely affected by soil degradation.³

Pesticide and fertilizer overuse: Pesticide and fertilizer overuse adversely affect the natural environment by impacting organisms, waterways, soil, air and human health.⁴

Climate change: The increase in global mean surface temperature drives more frequent and severe impacts on organisms, ecosystems, human systems and well-being.⁵

Soil loss: Due to tillage from conventional agriculture, the earth is estimated to lose soil at a rate of 100 times more than the rate of soil formation.⁶

The "Fight the Food Fight" campaign is a call to action that encourages consumers to join AppHarvest in its mission to create a more resilient food system designed for the long-term wellbeing of people and the planet.





LETTER FROM OUR **FOUNDER & CEO**

AppHarvest is a sustainable food company. The adage “You are what you eat” takes on all new meaning in today’s world with changing climate, perilous water shortages and unpredictable growing conditions as we learn two of our most powerful levers to reverse damage already done are changing what we eat and how we produce it.

“Fight the Food Fight!” That’s the AppHarvest rally cry to build a robust, climate-resilient food system that’s better for both people and planet. At-scale solutions capable of feeding an exploding population while ensuring water conservation, land preservation for biodiversity and food security despite extreme weather—that’s what we’re fighting for.

Farmers’ jobs are harder than ever. At AppHarvest, we say we’re working to disrupt agriculture. The reality is that climate change has already brought that disruption. This past year presented more of the same obstacles threatening our U.S. food supply—drought, wildfires, flooding, ice storms, extreme temperatures during the growing season and exceptional wind events.

This type of challenge is exactly what the AppHarvest team members signed up for—to do meaningful work with purpose enabling us to produce far more food with far fewer resources. As a public benefit corporation and a B Corp, we’ve been fortunate to have so many talented individuals join us to tackle these issues with the faith + grit that we hold as a company value.

With a year of operations under our belt, we can more clearly see the challenges, the opportunities and the critical need to leverage controlled environment agriculture (CEA) to achieve this goal. While in hyper-growth mode and planning to quadruple our number of farms by the end of 2022, the AppHarvest team ramped up our flagship farm and applied lessons learned to improve operations there and to the three new indoor farms we’re bringing online. I am heartened and motivated by the progress we’ve made. Some highlights include:

- **Hiring about 500 employees for certified living wage jobs in Central Appalachia and training them during COVID while remaining safe.**
- **Continuously ramping up production at our first facility to deliver sustainably grown tomatoes to top national grocery store chains and restaurants**
- **Leveraging our closed-loop irrigation to use up to 90% less water than open-field agriculture while preventing runoff pollution of waterways in an era of exceptional water shortages around the world**
- **Dedication to Integrated Pest Management as our primary line of defense against pests and disease and innovating in this space to reduce pesticide use**
- **Progress on recycling and minimizing food waste**
- **Rapid tech development of prototype collaborative robots and farm management software to further optimize resources**
- **Recertification as a B Corp with a score of 95.4, a 15% increase, despite expanded operations**

We realize that for a significant shift to more sustainable food to take place we need a consumer movement, and that requires education. Climate change coupled with the water shortages plaguing agriculture pose a more imminent threat to civilization than war. That’s why we’ve worked hard this year to amplify the conversation around the need for CEA to be the third wave of sustainable infrastructure—on the heels of renewable energy and electric vehicles.

We’ve stimulated conversation in our communities, among politicians on each side of the aisle from the county through the federal level, among investors and in media to bring a focus on the critical need to ensure domestic food security and the ability for CEA to accomplish that while providing good jobs in agriculture in areas of the country that need it most.

With our long-term commitment to doing right by our broad range of stakeholders, we will continue to Fight the Food Fight as we expand our network of farms and seek to make CEA solutions available to operators across the global sector. This new generation of farmers + futurists have the passion + dedication we need to conquer the challenge of delivering solutions that can help meet growing global demand for healthy, nutritious food in a way that’s better for us all.

Sincerely,

JONATHAN WEBB



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ABOUT THIS REPORT

This report covers the work of our 2021 (Jan. 1-Dec. 31) calendar year and our required reporting as a public benefit corporation (PBC). We discuss progress and challenges against PBC goal one, environmental sustainability, on pages 22-27. We cover progress and challenges against PBC goals two and three, improving the lives of our individual employees, their families and our larger community, on pages 13-21. Our 2020 Sustainability Report can be viewed [here](#).

Information in this report covers entities AppHarvest Operations, Inc., AppHarvest Morehead Farm, LLC, AppHarvest Richmond Farm, LLC, AppHarvest Berea Farm, LLC, AppHarvest Pulaski Farm, LLC and AppHarvest Technology, Inc. We report in accordance with GRI content index and SASB's agriculture standards.

AppHarvest's Sustainability Report provides an overview of long-term company goals and efforts in support of those goals. Some material is derived from other company documents,

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and links are provided to those documents where appropriate. The report contains goals, commitments and aspirational or otherwise forward-looking statements and actual results may differ, possibly materially. The report also includes numbers and percentages that are estimates or approximations and that may be based on assumptions. See Index for additional important information about these forward-looking statements.

This report was reviewed by our senior management team including our Founder & CEO and was published on June 1, 2022. Additional questions about the report can be sent to Info@Appharvest.com

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Morehead, KY 40351



APPHARVEST SUSTAINABILITY REPORT 2021

ABOUT US

Controlled Environment Difference

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Company Mission and Values

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How We Work

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ABOUT APPHARVEST

AppHarvest is a sustainable food company in Appalachia that develops and operates some of the world's largest high-tech indoor farms, designed to grow non-GMO produce using up to 90% less water and only rainwater while producing yields up to 30 times that of traditional agriculture on the same amount of land without agricultural runoff. We aim to create climate-resilient food supply and improve access to nutritious fruits and vegetables.

We are based in Morehead, Ky., where we operate our 60-acre flagship indoor farm. Our Morehead facility, currently dedicated to tomatoes, is among the largest indoor farms in the world. We expect to quadruple our number of farms by the close of 2022. All four indoor farms will operate in Kentucky and are expected to enable us to diversify into salad greens and berries.

IN 2021, APPHARVEST FOUGHT THE FOOD FIGHT BY:

- Harvesting and shipping our first tomatoes from our flagship farm
- Starting the expansion of our network of farms
- Acquiring a robotics and artificial intelligence (AI) company
- Launching tomato-based products on our e-commerce platform
- Creating about 500 certified living wage jobs

THE CONTROLLED ENVIRONMENT DIFFERENCE

While most controlled environment agriculture (CEA) production comes from traditional greenhouse companies, a number of high-tech vertical farms also exist in the market. These startups are often focused on development of farms either in or near major cities. These companies generally have smaller product offerings and tend to focus on salad greens products due to limitations of their technologies and capital. By contrast, we believe our facilities will have the ability to grow a variety of crops including salad greens, tomatoes, cucumbers, strawberries, peppers, eggplants and more in the future. We are also differentiated in prioritizing use of two of the earth's natural inputs: sunlight and water. In fact, our Morehead CEA facility is one of the only facilities of its type and size in North America to rely on rainwater for its production. Although we do supplement the sunlight our plants receive with LED lighting and high-pressure sodium lighting, our plants require less energy than indoor warehouse farms because of our passive solar design.

COMPANY MISSION AND VALUES

AppHarvest's farmers and futurists combine science with world-changing inspiration. Our leading-edge technology, sustainable use of natural resources and farming know-how allow us to grow more with less. Our large-scale indoor farms create quality jobs and prosperity in the heart of Appalachia, as well as contribute to a climate-resilient, domestic food supply. Fresher foods. Healthier diets. Rewarding jobs. This is farming now.

- Faith + Grit**
- Passion and Dedication**
- Proactive, Entrepreneurial Mindset**
- Radical Transparency and Trust**
- Collaborative and Inspiring Leadership**

FARMING HIGHLIGHTS

2021 Net sales:

\$9MM

Employee headcount:

as of 12/31/21

500

Farm in operation:

1



HOW WE WORK:

Empowered by nature, enabled by technology and driven by people. We're on a mission to grow healthy foods sustainably in a way that's better for people and planet.

PRECISION GROWING:

Our sophisticated systems use 300 strategically placed sensors to gauge microclimates and calculate the precise levels of light, water and CO₂ that each plant needs to thrive, ensuring each plant receives the exact amount of nutrients and water.

HYBRID LIGHTING:

Our growing team develops lighting recipes to boost harvests, maximize the effectiveness of sunlight and leverage LEDs and high-pressure sodium growing lights for higher, sustainable crop growth year-round.

FRESH HARVESTING:

Farming AI and prototype harvesting co-bots support experienced growers and Crop Care Specialists, helping to ensure tomatoes are picked fresh after ripening on the vine and can be delivered to nearly 70% of the U.S. population within a day's drive.

INTEGRATED PEST MANAGEMENT:

We use beneficial insects throughout our facility to control the pest population. We also use hundreds of sensors and cameras to record and analyze high-quality, granular images of each plant, with the goal of identifying any pests before they harm the crop.

WATER USE:

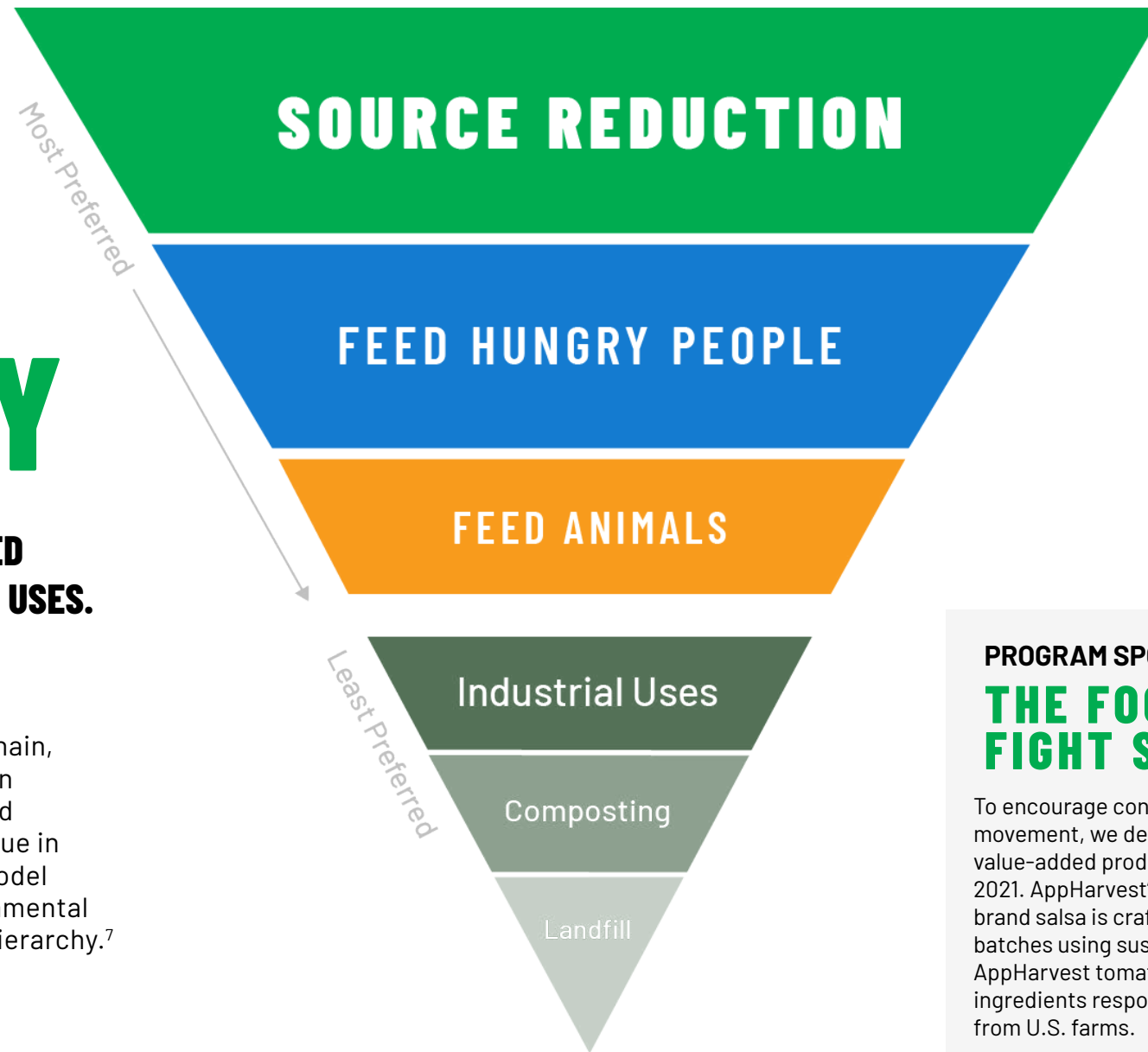
Nearly every drop of rainwater that enters the facility through our retention pond leaves as a tomato. AppHarvest's closed-loop irrigation system filters water using sand and UV light and results in up to 90% less water use compared to traditional agriculture.

FOOD RECOVERY HIERARCHY

ZERO WASTE STRATEGY

100% OF OUR FOOD PRODUCT AVOIDED LANDFILL, COMPOST OR INDUSTRIAL USES.

An estimated 30% of the food produced globally for human consumption is lost or wasted somewhere along the food supply chain, according to the Intergovernmental Panel on Climate Change.⁶ AppHarvest fights the food fight by reducing food waste and finding value in each fruit and vegetable we produce. We model our product-use hierarchy after the Environmental Protection Agency's (EPA) Food Recovery Hierarchy.⁷



SOURCE REDUCTION: Premium fruits and vegetables are distributed to top national food service outlets and grocers, such as Wendy's and Kroger. Ripe and ready-to-eat fruits and vegetables are sold through a food service distributor to local retailers and restaurants. Over-ripe or imperfect yet still high-quality fruits and vegetables have been used in value-added products, such as tomatoes in salsa (see spotlight below). We prioritize direct and efficient shipping to deliver a fresh product to our consumers.

FEED HUNGRY PEOPLE: Slightly over-ripe or imperfect fruits and vegetables are donated to area food banks. We partner with God's Pantry Food Bank, a member of Feeding America, which distributes food to 50 counties in Central and Eastern Kentucky in partnership with 450 pantries and meal programs.

FEED ANIMALS: Fruits and vegetables that cannot be used for human consumption are used as animal feed for local farms.

PROGRAM SPOTLIGHT:
THE FOOD FIGHT SALSA

To encourage consumers to join our movement, we debuted our first value-added product in October 2021. AppHarvest's "The Food Fight" brand salsa is crafted in small batches using sustainably grown AppHarvest tomatoes and only ingredients responsibly sourced from U.S. farms.



GOVERNANCE

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ABOUT GOVERNANCE



As a public benefit corporation and a Certified B Corporation (B Corp), AppHarvest is built on a foundation of environmental, social and governance (ESG) principles. Our approach to good business strives to create value for all our stakeholders, including investors, communities, employees, customers and suppliers.

PUBLIC BENEFIT CORPORATION

AppHarvest holds a unique place as one of fewer than 10 companies in the U.S. that are publicly traded, a public benefit corporation and a B Corp. Our certificate of incorporation include commitments to consider the best interests of all stakeholders. We have three public benefit goals in our charter:

- (i) Empower individuals in Appalachia
- (ii) Improve the lives of company employees and the communities in which we operate
- (iii) Drive positive environmental change in agriculture

In pursuit of these three goals, we have joined the Clean Energy Buyers Association (CEBA) and Business for Social Responsibility (BSR).

B CORP RECERTIFICATION

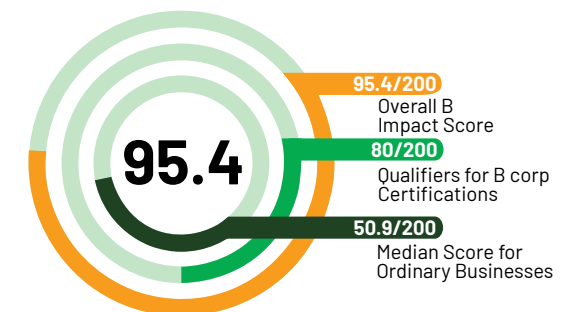
B Corps are for-profit companies that meet the highest standards of verified environmental and social performance, accountability and transparency. The certifying body, B Lab, sets rigorous environmental and social performance standards by which it measures a company's commitment to positively impact their stakeholders and the environment. B Lab assesses a company on more than 200 ESG

questions and awards the certification to those that meet its ambitious standards with a score of at least 80.

AppHarvest was recertified with a 15% score improvement of 95.4, reflecting many ESG improvements while going public and completing our first full year of operations with the opening of our Morehead controlled environment agriculture facility.

HIGHLIGHTING OUR 15% SCORE IMPROVEMENT

- Achieving our goal of paying 100% of the health insurance premiums for employees and their families
- Implementing a rainwater recycling irrigation system
- Adopting a Code of Ethics reviewed annually by the Board of Directors
- Establishing a Board-level Sustainability Committee
- Tracking and reporting data around our water, energy, carbon and waste
- Ensuring the highest standard of health and safety are achieved



BOARD-LEVEL OVERSIGHT

The company's highest level of oversight is our Board of Directors (BOD). Our Board and Board committees are staffed with majority independent members. AppHarvest defines "independent" as persons who are not a company employee and are not an investor of greater than 5%. The Board is made up of 60% traditionally underrepresented groups: 30% females and 30% racial minorities. Our Board has four designated committees: Audit, Compensation, Nomination and Corporate Governance, and Sustainability.

We have taken a number of steps in the past year to strengthen our commitment to advancing ESG initiatives. One key step was taken in March 2021 when we established the Sustainability Committee to assist our Board in its oversight of our policies and programs related to ESG matters. Specifically, we charged the Sustainability Committee with, among other things, reviewing and assessing (1) key initiatives, engagements and proposals related to material ESG matters, (2) alignment between ESG strategies and long-term value

creation, (3) the company's sustainability policies, goals and metrics and (4) the company's efforts to obtain and maintain third-party ESG-related certifications, including B Corp certification from B Lab. In addition, our Board's oversight of ESG matters now involves quarterly reviews of ESG key performance indicators (KPIs) and periodic assessments of updates to our materiality assessment.

As we developed our sustainability strategy, commitments, and supporting policies over the last year, our Chief Sustainability Officer (CSO) has kept our senior management and Board of Directors apprised of key developments. At the executive level, our Chief Executive Officer reviews and approves our sustainability strategy, with input from members of our senior leadership team and reference to our materiality assessment. We review our strategy and report progress each quarter to the Sustainability Committee of the Board of Directors. Our ESG initiatives involve expertise and leadership in many departments throughout the company from our CSO and Sustainability Manager to our leads on EH&S, People Teams and Community.

ETHICS & COMPLIANCE

AppHarvest works to achieve the highest ethical standards throughout the business and operations. We operate under the guidance of our Code of Business

Conduct and Ethics and Corporate Governance Guidelines. Violations of the Code can be submitted anonymously through a toll-free phone or secure web form. Our General Counsel serves as the Chief Compliance Officer and is responsible for overseeing the global compliance program. We provide annual compliance updates to our Board and give quarterly updates to the Audit Committee, comprised entirely of independent directors. All new AppHarvest employees are required to acknowledge they have read and understand our Code of Business Conduct and Ethics.

CORPORATE GOVERNANCE | APPHARVEST



Data as of March 31, 2022



MATERIALITY ASSESSMENT

AND ESG KPIs

A materiality assessment is a crucial step in identifying the issues most “material” to a company. Selected topics guide a company’s ESG strategy, including collecting and reporting data against each issue. During 2021, the Sustainability Committee reviewed and approved our first materiality assessment, informed by an outside group, Business for Social Responsibility (BSR). The assessment included interviews with key stakeholders including regional economic development organizations, retailers, sustainability experts at BSR and our internal senior management and Board members. The Sustainability Accounting Standards

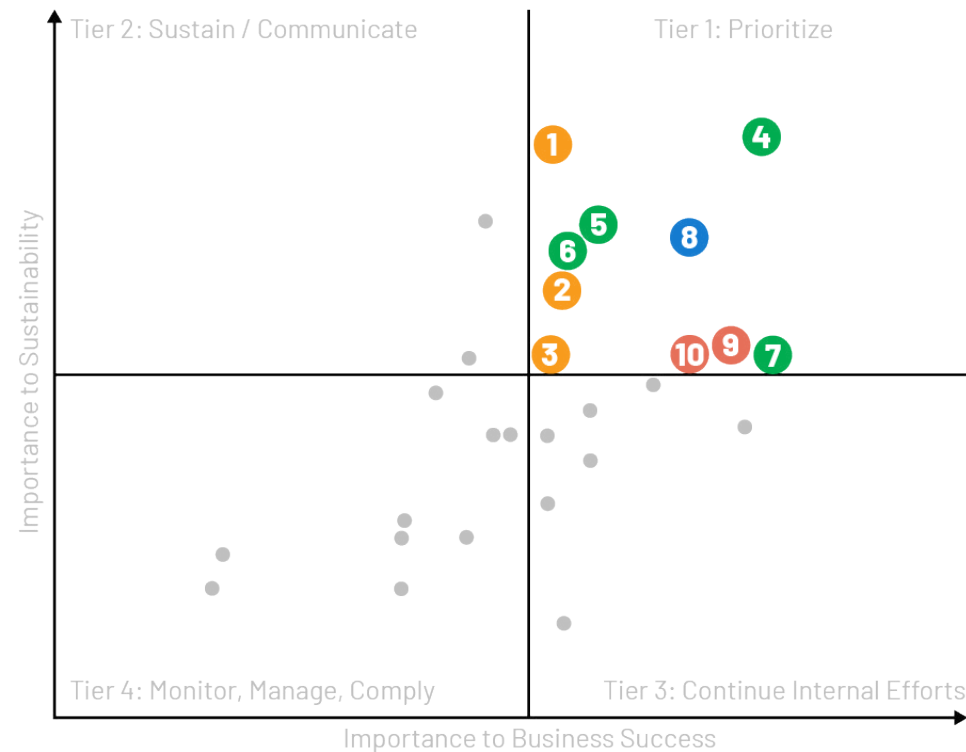
Board (SASB) Standard for Agricultural Products served as the primary guide, with the SASB Standard for Engineering & Construction Services serving as a secondary guide. The assessment was also guided by the United Nation’s Sustainable Development Goals (SDGs) and the B Impact Assessment from B Lab.

Topics were ranked by importance to business success and important to sustainability. Topics that scored highly on both topics are identified as “Tier 1.” We identified 10 priority topics as shown on our Materiality Map. Our ESG KPI Table tracking these issues is provided on p. 29.

Materiality: In this report, use of the term “materiality” refers to the list of sustainability topics about which AppHarvest measures and reports on because they are material for various stakeholders. It should not be confused with materiality for financial reporting or regulatory purposes. Tier 1 issue definitions were established in collaboration with BSR.

CATEGORY KEY

- Employees
- Environment
- Community & Supply Chain
- Product



TIER 1 ISSUE

DEFINITION

1 Labor Practices

[Location in Report](#)

Fostering strong labor relations and efforts to ensure compliance with labor standards for company employees, including management-worker relationships, freedom of expression and association, no discrimination and the right to collective bargaining.

2 Workplace Health & Safety

[Location in Report](#)

Workers' exposure to potential health and safety hazards are to be controlled through proper design, engineering and administrative controls, preventive maintenance and safe work procedures, and ongoing health and safety training.

3 Diversity & Inclusion

[Location in Report](#)

Efforts to ensure that the company workforce (at all levels, including Board) reflects not only the global business strategy in terms of R&D, operations and customer base, but also reflects the diversity (in gender, age and race) of the workforce pool in the countries of operation.

4 Water Use & Pollution

[Location in Report](#)

Implementation of a systematic approach to conserve, reduce use of and reuse water in company operations and supply chain; to avoid withdrawing water from local freshwater sources (by optimizing use of rainwater and recycled water); to stimulate water conservation within its sphere of influence; and to ensure responsible management of wastewater.

5 GHG Emissions

[Location in Report](#)

The emission into the earth's atmosphere of any of various gases (water vapor, carbon dioxide, methane, nitrous oxide and ozone), contributes to the greenhouse effect. This includes AppHarvest's scope 1, 2 and 3 emissions - from farm operations as well as distribution of products and broader supply chain.

6 Climate Change Vulnerability

[Location in Report](#)

Efforts to develop strategies to mitigate and adapt to climate change, managing impacts across AppHarvest's value chain.

7 Energy Use

[Location in Report](#)

Implementation of a systematic approach to improve the energy efficiency of both direct and indirect energy consumed in the company business operations and production processes, including transport, and to optimize use of clean energy.

8 Regional Economic Development

[Location in Report](#)

Process of diversification and enhancement of economic and social activity on a local scale in a territory where AppHarvest is operating / sourcing materials - distributing benefits to local communities with a specific focus on opportunity zones and Appalachian Regional Commission (ARC) counties - including the direct or indirect job creation resulting from AppHarvest's activities, promoting strong educational foundations and other local investment.

9 Food Quality & Safety

[Location in Report](#)

Products should be safe for consumers and meet appropriate quality assurance standards and applicable regulations. Understand facilities' and suppliers' non-conformance with food safety protocols and the Global Food Safety Initiative (GFSI) including the total number of food-safety-related recalls issued.

10 Social Impact of Products

[Location in Report](#)

Nutritional content of food products and efforts to introduce products with an improved nutritional or health profile, chemical pesticide-free, harvested at peak nutritional value, and accessible and affordable to low-income segments.



PEOPLE

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EMPOWERING INDIVIDUALS IN APPALACHIA

AppHarvest has created a unique opportunity to redefine agriculture, building an AgTech hub in Appalachia that seeks to support jobs with longevity and upward mobility for its proud, hard-working and resilient people. Sourcing more produce locally also helps to avoid significant supply chain risks, such as disruptions caused by severe weather or concerns regarding important social issues like unethical working conditions.

For example, although the United States sources much of its produce from Mexico, the Biden administration recently blocked tomato shipments from two large Mexican agribusinesses that ship millions of pounds of produce to American chains, such as Walmart and Albertsons.⁸ This measure followed a number of labor violations at these two importers, including withheld wages and abusive working conditions.

For AppHarvest, "Empowering Individuals" means we offer a living wage, affordable healthcare premiums and an equity stake in the company. Many employees come from second-chance employment programs and underrepresented communities, where some of the labor opportunities have disappeared. As a B Corp and a public benefit corporation, we acknowledge our stakeholders include both shareholders and employees. In terms of opportunity, we want to enhance returns for employees as well as shareholders.

EMPLOYEE DIVERSITY

35% FEMALE EMPLOYEES

8% RACIAL MINORITY EMPLOYEES

27% FEMALE MANAGERS

15% RACIAL MINORITY MANAGERS

Data as of March 31, 2022

AppHarvest employees self-report gender and ethnicity. We define minority as employees that report outside of "white" and "chose not to disclose." Note that headcount and diversity numbers fluctuated throughout 2021 due to this being our first year of operations and the first time the majority of our employees worked in CEA. For breakdown by employee categorization, see ESG KPI Index on page 29.





LIVING WAGE AND BENEFITS

In 2021, AppHarvest completed a Living Wage Assessment with Businesses for Social Responsibility (BSR) to verify we paid 100% of employees a living wage. BSR's exhaustive methodology measures regional earnings, cost of living, household size, household expenditures and more.

By paying each employee a living wage, they earn income equating to a standard of living that accounts for recent social, cultural and economic conditions. Employees earn an entry-level pay of \$13 an hour, nearly twice the federal minimum wage, and have the potential to earn a productivity bonus. Total compensation can reach up to about \$25 an hour.

Also included in the living wage calculation, AppHarvest provides a benefits package that can equal hundreds of dollars a month for employees, especially those with families. We offer a portfolio of medical, dental, vision and life insurance options to all employees and their families.

AppHarvest also makes every employee a stockholder and offers a 401(k) with a 100% employer match up to 3% and an additional 50% match up to 2% to set up employees for a successful financial future.

Area businesses in Morehead have started to raise wages and benefits packages to compete with AppHarvest, which benefits us all. We applaud the region's employers and hope to see a similar chain reaction after our expected opening of three new facilities in Richmond, Berea, and Somerset, Ky.

SECOND-CHANCE EMPLOYMENT

AppHarvest takes a unique approach to employment. While our recruiting team looks for individuals with tenure at previous jobs and experience relevant to working in our facilities, we also give special consideration to candidates who may have had legal issues related to substance abuse.

We may offer employment to individuals with a non-violent, non-sexual and non-drug-related criminal record. Our partnership with a variety of addiction recovery centers across Eastern Kentucky identifies individuals with substance use disorders (SUD) who have reached the workforce reentry phase of their recovery process. Throughout their employment at the company, individuals with SUD have access to a support specialist and success coach to guide them through the other complexities of reentering the workforce, such as grants for housing and transportation.

HEALTHY LIVING

Each month, we contract with a local vendor to provide community-supported agriculture (CSA) boxes packed with nutritious, fresh produce for team members. Past vendors have included Truly Local, Black Soil Kentucky, Local Food Connection and Lazy Eight Stock Farms. In total, we engaged 57 local farmers in 2021. We also offer employees healthy food choices at work, with a free vegetarian

lunch every Wednesday provided by local restaurant, Connie Jo's Cafe, free healthy snacks available throughout every workday, and catered meals on holidays and overtime days.

PROGRAM SPOTLIGHT:

FARMING NOW WORKFORCE TRAINING CERTIFICATE

Through a partnership with Maysville Community and Technical College, AppHarvest won a federal grant from the Department of Labor's Workforce Opportunities in Rural Communities Initiative to develop a six-part AgTech curriculum for students to earn a "Farming Now Workforce Training Certificate." In addition to spending half of their time in a hydroponic classroom learning the hands-on techniques of crop care, students participate in sessions at the Maysville Community and Technical College campus in Rowan County, Ky., to gain other transferrable skills such as sales, marketing and business development.



CAREER PATHS

We prioritize internal promotions, giving every employee a chance to pursue their passions and grow their careers. By striving to upskill employees and “growing our own growers,” we work to foster an AgTech hub in Central Appalachia. Here are a few employees who have grown with us.

LYNDSEY GREEN

FROM INTEGRATED PEST MANAGEMENT SCOUT TO ASSISTANT GROWER

As a local, Green had her eyes on AppHarvest from the beginning. She watched the construction of the Morehead indoor farm and set a goal of one day joining the company. With a degree in biology, she wanted to establish a long-term career in growing. But she jumped at the chance to join us as an integrated pest management scout.

She recently was promoted to an assistant grower position, fitting her passion.

“My favorite part is that we don’t have just one job,” Green says. “We get to come in every day and not only manage labor and things like that, but we also deal with biology and ecology. We get to be engineers, because we have to troubleshoot any sort of equipment issue. You really don’t know what you’re going to get every day, so every day is a challenge.”

She says joining AppHarvest was everything she hoped for, and more.

“As I started to grow in the company and I took on more responsibilities, it ended up not just being a job, but something I look forward to every day that I really genuinely love doing,” she says. “And the people that I work with are great. We have access to some of the top people in our field to teach us, help us grow and make connections around the world with other people that work in greenhouses. It really has become more of a family than just people you work with.”

NICK LASTER

FROM SUMMER INTERN TO HR COORDINATOR TO HR SYSTEMS ASSOCIATE

As a passionate baseball player growing up in metro Atlanta, Nick Laster always enjoyed being part of a team. Today, as part of AppHarvest’s HR department, being part of a team is what still motivates him.

“We’re all trying to accomplish one thing, and we have a very good team environment to help us to accomplish our goals,” he says. “It’s hard to find a lot of companies where people are actually drawn to the mission. People come to AppHarvest from other prestigious organizations to help build something in Kentucky and make this place the hub for AgTech.”

Laster, who earned a bachelor’s degree and MBA at Eastern Kentucky University, joined AppHarvest as a summer intern in the HR department in May 2021. He returned after graduation as an HR coordinator in September 2021 and was recently promoted to HR systems associate, where he handles database management, reporting and analysis.

“We plan on growing, growing and growing,” Laster says. “This place will never stop growing, so we’re always looking to improve. We want to be not only the biggest but the best, and the most efficient and effective.”

“This place is so accepting, no matter your background, where you come from, your color, race, religion or anything like that,” he says. “We accept people from a lot of different places and have things in place like second-chance programs and a lot of unique partnerships and programs here in Kentucky. This place is a home for a lot of people, and I feel like it will be for the future.”



LEADERSHIP IN SAFETY

In fulfillment of our core value of radical transparency and trust, AppHarvest is committed to promoting a safe and healthy work environment for all employees and is regularly audited by external organizations.

In 2021, we completed our initial Sedex Members Ethic Trade Audit (SMETA), which is a social and safety audit that allows our retail partners such as Wendy's and Kroger to better understand our working conditions. Corrective actions from the audit help us identify opportunities to improve the employee experience.

In our first full year of operations, our safety data exceeded industry benchmarks. Total recordable incident rate (TRIR) for 2021 measured 4.9, which falls below the Occupational Health and Safety Administration (OSHA) industry benchmark of 5.1 for indoor farms. We also achieved a rate of 2.8 days away/restricted or transfer rate (DART), also below OSHA's industry benchmark of 2.9.

Similarly, AppHarvest met all requirements under a **Global Food Safety Initiative (GFSI) Audit, passing with a score of 97%**. GFSI provides third party confirmation that our facilities are processing fruits and vegetables that are safe for consumers.

EXCEEDING OSHA BENCHMARKS

TRIR **4.9**

DART **2.8**

Nothing can be grown without the people that we have. We must protect our greatest asset, which is people. **We fight to keep our employees safe and healthy – we are a big part of the Food Fight. If we don't keep people healthy and safe and the environment clean for our plants to grow, then you're not going to have any product.**

CHAD HILL

SENIOR MANAGER,
ENVIRONMENTAL, HEALTH
AND SAFETY

PROGRAM SPOTLIGHT: AWARDS AND RECOGNITIONS

Through our growth and efforts to make a difference, we are proud to have been recognized with employer awards from a variety of sources that value the work we do and help us promote ethical agricultural practices.



AgTech Breakthrough Awards:
Indoor Farming



Fast Company's World Changing Ideas:
Food Honorable Mention



Procore's Groundbreaker Award:
Community



The FoodTech 500:
Food, Technology and Sustainability



Fast Company's Next Big Thing in Tech:
Sustainability Honorable Mention



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IMPROVE COMMUNITIES IN WHICH WE OPERATE

United Nations studies forecast global food production will need to increase up to 70% by 2050.⁹ Kentucky, and most of Appalachia, ranks among the worst in the United States in various health and hunger metrics. One in six Kentuckians is unsure about where they'll get their next meal, and one in five children in Central and Eastern Kentucky experience hunger.⁹

AppHarvest is committed to creating an AgTech ecosystem in Central Appalachia to support the community through education and the implementation of controlled environment agriculture.

NEW CONSTRUCTION

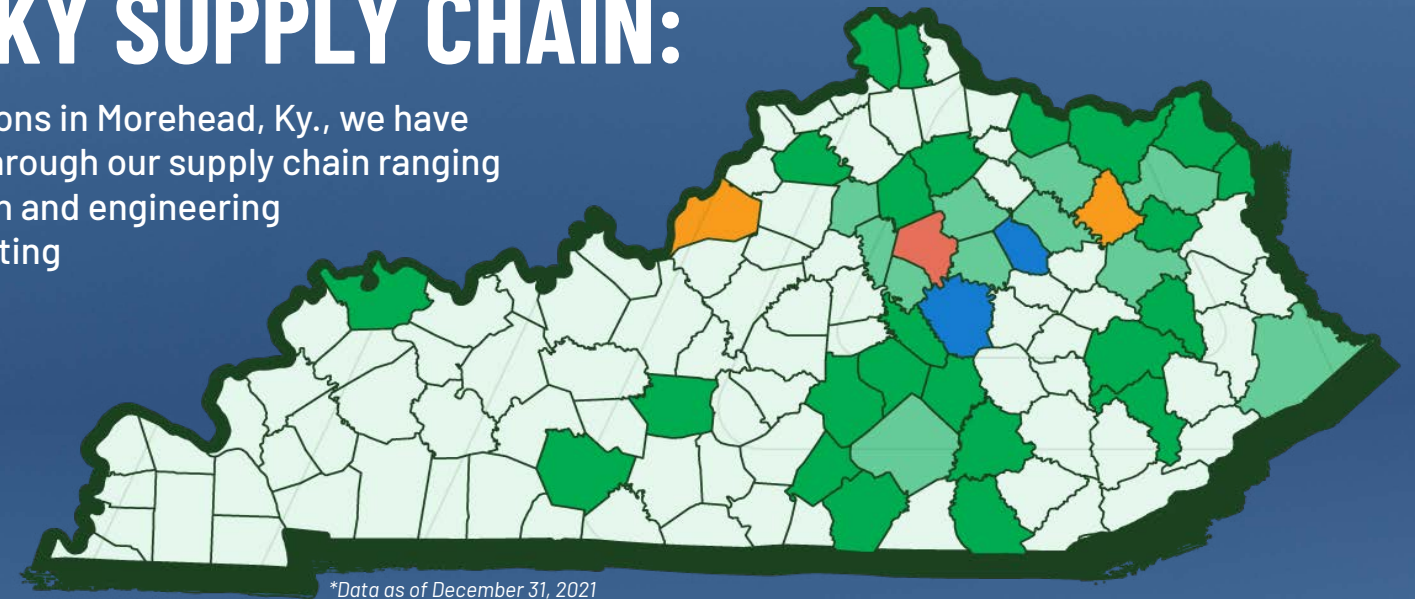
AppHarvest production is expected to increase in 2022. We are on track to quadruple our number of farms by the end of the year and to diversify our produce portfolio to include salad greens and berries. These new farms will expand our economic impact into Richmond, Berea and Somerset, Ky. To date, we have more than 333 Kentucky-based businesses in our supply chain, and as we continue to grow, we expect these suppliers to expand and create more jobs and more benefits for the community.

As part of our stakeholder engagement plan for entering new communities, a team of dedicated outreach specialists creates opportunities to listen to community members and identify mutual goals and areas for collaboration. We are also sensitive to landowners who want to make sure any family land they sell will be put to positive use. In Somerset, for example, a landowner had received multiple offers to purchase her land. But she held out, waiting for a company like AppHarvest that would be a good steward, only using the land for agriculture and in a way that is beneficial for the future.

OUR KENTUCKY SUPPLY CHAIN:

Through AppHarvest's operations in Morehead, Ky., we have grown our economic impact through our supply chain ranging from restaurants, construction and engineering firms to clothing vendors, printing companies and more.

333 BUSINESSES
40 COUNTIES



Quantity of Businesses 1-3 4-9 10-20 21-53 109





APPHARVEST FOUNDATION



“ I want people at my school and in the city to understand what agriculture is. They think it’s just farming, but it’s really a lot more. Anything that has to do with working with living organisms is agriculture. ”

ANTHONY JACKSON
 EDUCATION PROGRAM STUDENT,
 CARTER G. WOODSON ACADEMY’S
 FUTURE FARMERS OF AMERICA
 (FFA) CHAPTER PRESIDENT AND
 APPHARVEST SENIOR CO-OP INTERN

PROGRAM SPOTLIGHT: 4-H YOUTH DEVELOPMENT

AppHarvest teamed up with 4-H Extension for a series of five-day summer camps for students across Eastern Kentucky in summer 2021. Members of our staff worked with 4-H to educate middle school and high school students and community members about AgTech and the role it can play in the future of agriculture. Students received hands-on experience planting, transplanting and growing produce in our hydroponic classroom farms, participated in science experiments, enjoyed cooking demonstrations from local chefs and engaged in wellness activities.

An AgTech ecosystem offering practical educational experience will facilitate creating a sustainable agriculture hub. In 2021, we launched the AppHarvest Foundation to address this educational need, especially at the high school level. The AgTech Education Program brings the latest agricultural practices into classrooms, providing students a foothold into one of the fastest growing industries and creating hands-on learning with immediate outcomes for the local food system.

EDUCATION PROGRAM

In 2018, we piloted an education program incorporating an AgTech curriculum and high-tech hydroponic farm, with the first facility placed at Shelby Valley High School in Pikeville, Ky. Each farm is a retrofitted shipping container that uses LED lighting and a closed-loop irrigation system that has the capacity to cultivate a variety of leafy greens. The farms can grow year-round and serve as an education tool for the program participants.

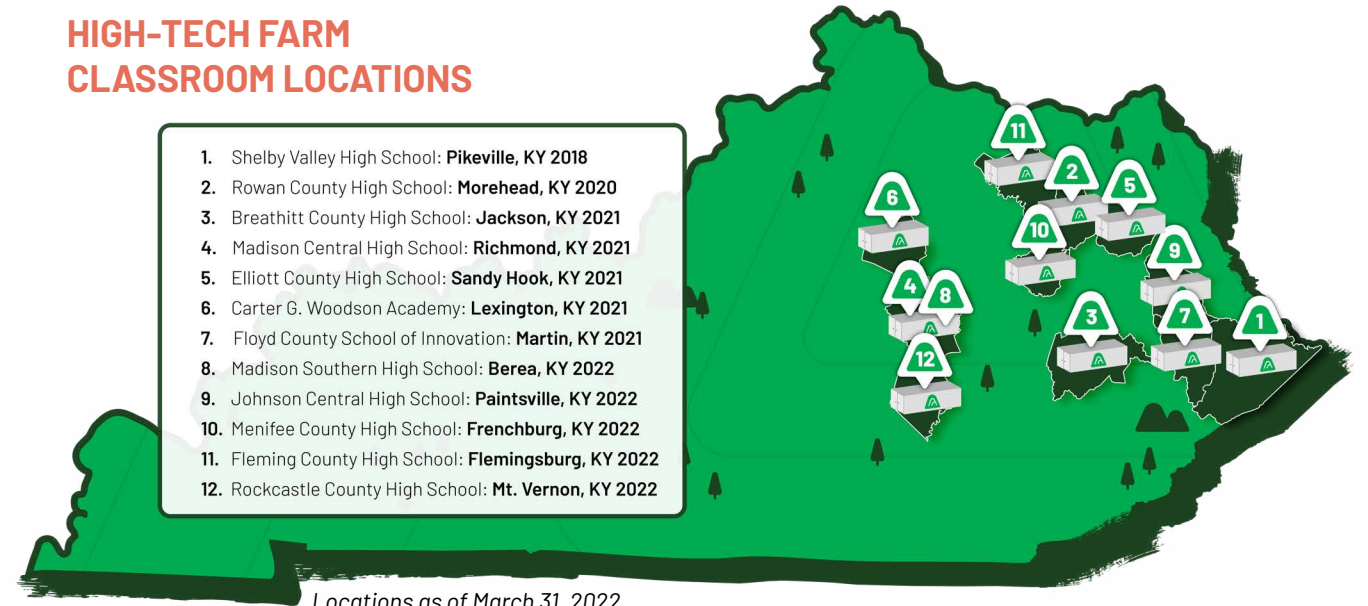
Now in its third year, the program offers students a hands-on opportunity to grow their own food and continues to expand with seven hydroponic classrooms operational at the end of 2021. Students learn about nutrition and a variety of STEAM subjects, such as systems engineering and chemistry, providing transferrable skills they can apply now and in the future. Established by the Kentucky Department of Education, the Career Technical Education Pathway for Agriculture has approved the six-unit AgTech curriculum.

The program also presents an opportunity to teach students how their actions have a direct, immediate and tangible impact in their communities. The student farmers often donate what they grow to a local food pantry or share these healthy vegetables with classmates through their school food service programs.

Through grant writing, public funding and public-private partnership, the program expects to continue to expand to engage more youth in the business, social and science aspects of AgTech complemented by hands-on experience with hydroponic controlled environment agriculture.

HIGH-TECH FARM CLASSROOM LOCATIONS

1. Shelby Valley High School: **Pikeville, KY 2018**
2. Rowan County High School: **Morehead, KY 2020**
3. Breathitt County High School: **Jackson, KY 2021**
4. Madison Central High School: **Richmond, KY 2021**
5. Elliott County High School: **Sandy Hook, KY 2021**
6. Carter G. Woodson Academy: **Lexington, KY 2021**
7. Floyd County School of Innovation: **Martin, KY 2022**
8. Madison Southern High School: **Berea, KY 2022**
9. Johnson Central High School: **Paintsville, KY 2022**
10. Menifee County High School: **Frenchburg, KY 2022**
11. Fleming County High School: **Flemingsburg, KY 2022**
12. Rockcastle County High School: **Mt. Vernon, KY 2022**



Locations as of March 31, 2022



APPALACHIA RISES

Appalachia Rises was formed by AppHarvest Founder & CEO Jonathan Webb in response to a series of major storms that hit Eastern Kentucky in early 2021, causing the most catastrophic flooding in the area in half a century. Thousands were displaced when flooding destroyed homes, businesses, schools, farms and other vital infrastructure.

Spearheaded by Webb, AppHarvest partnered with the Foundation for Appalachian Kentucky, Appalachian Impact Fund, Appalachians for Appalachia, the Blue Grass Community Foundation, WYMT, WKYT and New Frontier Outfitters to raise more than \$1.3 million in emergency relief funding for those affected by the floods. With the Community Economic Development Innovation in Kentucky facilitating the funding distribution, Appalachia Rises supported 35 Eastern Kentucky counties providing: \$422,000 to local non-profits, \$413,000 to local small businesses, \$270,000 to impacted families and \$250,000 to impacted farms.

EMERGENCY RELIEF FUNDING

540 FAMILIES

SMALL FARMS **202**

33 REGIONAL NON-PROFITS
ACROSS 35 EASTERN
KENTUCKY COUNTIES

MISSION DAYS

AppHarvest believes in giving back to the region beyond employment opportunities. Employees are provided with two mission days per year. These are paid volunteer days where we invite team members to spend a workday serving the community by working with organizations of their choice.

PROGRAM SPOTLIGHT: WORLD FOOD DAY EVENT AND SYMPOSIUM



Last fall, we used the United Nations dedicated World Food Day to raise awareness and promote changes that seek to bring sustainability and stability to the food system, feed the world's growing population fairly with healthy food, and eradicate hunger.

AppHarvest promoted World Food Day with an outdoor concert in downtown Morehead and an in person and online symposium featuring Steve Case, AOL co-founder and sustainability investor, along with regional leaders who discussed food system issues to bring attention to challenges we need to address to ensure a resilient food supply that is healthy for people and planet. Simultaneously, AppHarvest hosted a diverse group of 80 students from area schools at the Morehead indoor farm for a World Food Day symposium.



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DRIVE POSITIVE ENVIRONMENTAL CHANGE IN AGRICULTURE



United Nations studies estimate more than 70% of the world's fresh water is used for agriculture.² Increasingly, humans need fresh water for other activities. As the demand for water increases, agriculture must find more and better ways to be resource efficient.

IN 2021, APPHARVEST USED

2.08 GALLONS OF WATER PER POUND OF TOMATO

This metric outperforms the outdoor farming global average by more than 90%.¹¹

CONSERVING WATER

AppHarvest designed operations to use primarily rainwater, a better water source compared with city water or groundwater because it requires little treatment and eliminates the need for wastewater treatment, which is energy intensive. Leveraging a region with ample rainfall means AppHarvest saves the energy that would be used to pump the water and prevents the company from contributing to water scarcity issues.

When rainwater enters our closed-loop irrigation system, we filter it with sand and UV light. While this water effectively carries nutrients to the plants, we can also enhance the ability of the plants to absorb nutrients in the water with aeration. Aeration introduces nanobubbles, which increase the oxygen level

thereby making the transfer of nutrients from the water to the plants more seamless.

Through this filtered and aerated water, we deliver a precise nutrient mix directly to the root of the plant to promote optimal growth with no excess use and no agricultural runoff. All nutrients stay within the closed loop irrigation system to protect local ecosystems. This avoids the potential for release of potent greenhouse gases as occurs from NO_x (Nitrogen Oxides) emissions from fertilizer applied on open land. Any unused nutrients recirculate through the system.

The farm also uses a sophisticated misting system, where machines create a micro-fine mist that evaporates to consume extra heat inside the facility. This process adds a boost of humidity that supports photosynthesis.

CLIMATE RISK AND RESILIENCY

Climate risk and resiliency are key drivers behind growing in an indoor, controlled environment. We specifically address three major climate risks for agriculture: (1) risks of droughts and water shortages have been managed through our closed-loop irrigation system that captures rainwater on the roof and recycles the water, and allows us to use more than 90% less water than best practices in conventional growing methods for tomatoes¹¹; (2) our enclosed facility significantly reduces the risk of pests and diseases, both of which are predicted to potentially increase with changing climate¹²; and (3) our indoor farm has been designed to withstand severe storms protecting plants from damage from winds, excessive rains or other severe weather events such as ice storms. We've operated through several major ice storms and continued to send products to retail stores.





THE INTEGRATION OF SUSTAINABILITY AND TECHNOLOGY

To optimize our production capabilities, innovate on sustainability measures and deliver on our goal of establishing AppHarvest as a leader within controlled environment agriculture (CEA) we are committed to developing and sourcing the most advanced technology available, especially in the fields of robotics, artificial intelligence (AI) and automation.

APPHARVEST TECHNOLOGY, INC.

In April 2021, AppHarvest acquired an AI and robotics company, including their team with experience in CEA next generation technology, and formed AppHarvest Technology, Inc. (ATI). We are applying AI and robotic support to operate our CEA facilities as efficiently as possible with potential improvements from harvesting support to helping evaluate crop health and leveraging integrated pest management. ATI is focused on delivering two primary initiatives: a harvesting robot and a cloud-based enterprise software system to enhance visibility into labor management and quality control within our indoor farms.

The farm operations software that ATI is developing allows each facility to be a data-infused highly coordinated operation that improves end-to-end traceability. As we gather detailed insights into all steps of the growing cycle, including planting, production and harvest, we can better identify areas of strengths and opportunities for improvement. The combination of work data, quality and traceability provides



visibility into the status of the farm and the work that needs to be completed. For example, as we continue perfecting the growing cycle, AppHarvest crops may experience a decrease in pest and disease issues due to better monitoring while also producing the maximum quantity of high-quality fruits over a season. End-to-end traceability also enables data-driven decisions and real-time coaching moments that create a culture of continuous improvement.

We expect the newly developed tracking platform to be a valuable tool for quality control. Using mobile devices, growers track an expanded set of parameters for each plant and create a real-time feedback loop on employee performance. Early results have indicated this data can be leveraged to identify top-performing workers and team members who may be

struggling with specific tasks—and work to help them improve.

To achieve top results in CEA, crop work must be tracked closely throughout the growing and harvesting cycles, and the crop team must be organized and coached to get all crops what they need to thrive. We are working to leverage data and technology to assess the growing cycle and apply relevant insights to achieve this balance and become more resource-efficient in labor, water, energy and nutrient use. Precision agriculture of this type, we expect, will allow growers to shift from limited-visibility tools to data-driven decisions from advanced IT tools to ensure a crop plan is precisely implemented.

*Our ability to develop our technology depends on obtaining the necessary capital, assuming, among other things, that we are able to obtain necessary capital when needed on acceptable terms.





OUR PESTICIDE-FREE GOAL

To produce healthy food at scale, AppHarvest must protect against a broad array of pests and diseases. Our goal is to deliver produce free of chemical pesticide residues. We made tremendous progress toward this goal in 2021 with our first tomato crop.

GAINING GROWING EXPERIENCE

We use a combination of high-tech and low-tech solutions to avoid pests and disease for our tomato plants. Our first line of defense is advanced integrated pest management (IPM) with a team that includes an IPM Manager and IPM Scouts. In 2021, IPM training enabled scouts to spot, identify and remove pests early using the human eye to supplement IT tools.

For example, we addressed early issues with aphids by rapid training of scouts and Crop Care Specialists to ensure early detection. Successful early detection enabled growers to rely on botanical treatments to manage

aphids during the initial months of our second full growing season, which began in the fall of 2021. For fruit flies, the IPM team used simple vacuums and blowers to keep populations at bay and away from the fruit, another successful low-tech approach to eliminate, at this time, the need for conventional pesticides to address this particular issue.

We continue to deploy a range of beneficial insects, which are particularly effective at combatting pests. Parasitic wasps patrolled our facility to control whiteflies. We also control pests using physical traps.

Stronger tomato plants are less prone to diseases. The climate control system, accessible continuously through mobile devices, helps growing teams maintain optimal plant health through precise applications of nutrients and moisture. In addition, exciting developments with ATI enable more detailed tracking of every aspect of plant health and plant needs.

On p. 24, we discuss how ATI also drives improved produce quality and greater resilience to pests and disease.

AVOIDING POLLINATOR THREATS

An emerging area of concern is the use of pesticides that threaten pollinators: a group of chemicals known as neonicotinoids. Our pest management approach does not use any neonicotinoids.

In 2020, a European Union ban on neonicotinoids went into effect – in particular clothianidin, imidacloprid, and thiamethoxam – due to increasing evidence that these substances harm domesticated honeybees and wild pollinators. According to the International Union for Conservation of Nature (IUCN), neonicotinoid pesticides pose severe threats to ecosystems worldwide based on a comprehensive scientific review of the ecological impacts of systemic pesticides conducted by the IUCN Task Force on Systemic Pesticides.¹³ Yet, USDA’s most recent data on pesticide residue in tomatoes shows conventional agriculture frequently uses all three substances, which were found in a notable number of samples.¹⁴

PROGRAM SPOTLIGHT: ALIGNING OURSELVES TO BE MORE RESPONSIBLY GROWN

We succeeded in aligning with the “Best” category as defined by [Whole Foods Market’s “Responsibly Grown” policy](#), as we do not use any of the prohibited substances on the Whole Foods listing.

Their policy prohibits or restricts specific pesticides identified by scientists as high-risk but still commonly used in conventional agriculture. It also targets pesticides that pose the greatest risks to consumers, pollinators and other non-target organisms in the environment. To achieve “Best” status, produce must be grown without the core set of banned pesticides and without commonly used neonicotinoids. Specifically, under the policy, to move from “Good” or “Better” to “Best” categorization, four neonicotinoids are prohibited: clothianidin, dinotefuran, imidacloprid and thiamethoxam.

DISCLOSURE OF PESTICIDE USE

From time to time, we have found it necessary to use pesticides to protect and to regulate the growth of our crop. In 2021, during Season 1, this included occasional applications of Fulfill, Evergreen Pro, Botanigard and Verve. Thus far in Season 2, we have been able to eliminate use of Fulfill, an aphid treatment. We continue to occasionally apply Verve, a plant growth regulator, and EvergreenPro which helps control fruit flies. We also applied

Previcure-Flex, which protects against fungi, to the roots of our plants during the initial phase of planting.

In 2021, AppHarvest also adopted a new Pesticide Escalation Policy to enable our IPM team to follow standard operating procedures, including specific intervention criteria in the event of an outbreak of pests or disease. IPM is our first line of defense, and we only consider escalation when it fails to adequately protect the crop or to promote proper growth in the plants. We use the least toxic solution available, and any use must be approved by multiple senior leaders. This executive oversight ensures decisions to intervene with necessary pesticides are thoroughly vetted and account for ESG goals and available alternatives (including minimization), in addition to economic implications. Where appropriate, we have also engaged outside experts to provide additional background on substances to senior management before a decision is made.

For 2022, we have updated our [Integrated Pest Management Policy here](#).

POLLINATOR THREATS FOUND IN TOMATOES SAMPLED BY USDA

	% Samples with Detections	Potential Issues
Clothianidin (insecticide)	15%	Chronic toxic risk to non-endangered and endangered small birds and acute/chronic toxicity risk to non-endangered and endangered mammals and potential for toxic chronic exposure to honeybees, as well as other nontarget pollinators.
Dinotefuran (insecticide)	12%	Toxic to honeybees and other beneficial insects. May be tied to colony collapse disorder.
Imidacloprid (insecticide)	23%	Toxic to honeybees and other beneficial insects. May be tied to colony collapse disorder.

U.S. Dept of Agriculture, Pesticide Data Program, Annual Summary, Calendar Year 2018¹⁴





CHIEF SUSTAINABILITY OFFICER

JACKIE ROBERTS

Q: HOW DO YOU THINK ABOUT FOOD PRODUCTION AND GREENHOUSES GASES?

JR: Because food is an essential product, it's critical that we continue to work on reducing greenhouse gas emissions in our food systems and to look at solutions holistically. We believe that a big advantage for us is in our farm design. Like traditional greenhouses, we benefit from sunlight shining through our 2.76 million square feet of glass delivering passive solar for our plants. We are also able to precisely apply nutrients to our plants through a closed-loop irrigation system, which effectively prevents overapplication and runoff that could pollute watersheds. Fertilizer applied to open fields often is overused, which leads to more overproduction, and is estimated to contribute 20-30% of all Nitrous Oxides (NO_x) emissions, a greenhouse gas 300x more potent than CO₂.¹⁵ We leverage nature first before adding technology.

ENERGY Q&A

WITH JACKIE ROBERTS AND KIRAN BHATRAJU

Q: WHAT FARMING TECHNOLOGIES ARE MOST IMPORTANT TO APPHARVEST?

JR: Lighting is critical to operations. We use a unique LED and high pressure sodium (HPS) lighting system at scale— each LED array is 40% more efficient, so our 50/50 hybrid system has reduced energy use. Our growers read lighting reports on a daily basis to help us better understand how to leverage our supplemental lighting system to extend our growing hours while remaining energy conscious.

KB: Renewable electricity is a game changer for indoor farms as it can easily power both lighting and irrigation systems. The challenge in Kentucky is that AppHarvest is ready before the grid is. But the team is working every day to be a utility customer that pushes for changes in the type of electricity that can be purchased. To me, virtual power purchase agreements are a great solution, and the Board is supportive of off-site renewable purchasing. Locating operations in Kentucky creates jobs in coal country, but that also means working with a utility that currently has a CO₂ emission rate twice the national average. While that hurts AppHarvest today in terms of its carbon footprint, it also puts the team in a unique position to advocate for greening the grid, which stands to benefit the entire region.

Q: HOW SOON DO YOU THINK YOU WILL SEE A CHANGE IN YOUR FOOTPRINT?

JR: In 2021, we signed an agreement with Schneider Electric, a market-leading energy and sustainability service company, to advise us on purchasing renewable electricity. We issued a request for proposal and elected a seasoned developer. To be a catalyst for changing the grid locally, we were purposeful in choosing a project within our regional transmission organization, PJM.

However, PJM was overwhelmed by renewable energy interconnection applications and announced in February 2022 it would put a two-year pause on project approvals. We remain hopeful that our project will be fast-tracked based on the expertise of Schneider Electric and their knowledge of our selected project and developer.

KB: The Board has also reviewed on-site solar as an option for the AppHarvest farms, and solar surveys were completed at its Morehead and Richmond locations. Ideally, AppHarvest would sell back to the utility any unused electricity generated from on-site solar, but Kentucky doesn't offer net metering. In other words, on a sunny day when the farm is operating on passive solar rather than supplemental lighting, the excess electricity generated from the solar panels wouldn't be able to be sold back to the grid and used to help offset the cost of installing on-site solar.

Q: WHAT OTHER STEPS IS APPHARVEST TAKING TO REDUCE NEGATIVE IMPACTS OF AGRICULTURE?

JR: We continue to make improvements in supply chain efficiency through direct shipments to our customers, saving on transportation costs and reducing a step in the distribution process. Less time on the road means less fuel emissions and the delivery of a fresher product – and we're already well situated being located within a day's drive of about 70% of the U.S. population. I've already mentioned passive solar as a big win, but we benefit even more by using high-tech glass and glass coatings to optimize light diffusion and an east-to-west facility orientation to maximize solar capture. That means even less time with the lights on.

Q: HOW DOES THE BOARD MONITOR PROGRESS TOWARD ENERGY GOALS?

KB: During the materiality assessment, the Board established energy as one of AppHarvest's priority environmental, social and governance (ESG) metrics. All ESG metrics are summarized on p. 29 of this report. This data set is a valuable tool for the Board to monitor

material ESG issues and provides a baseline for a range of ESG KPIs from AppHarvest's first year of operations. Scope 1 and 2 emissions are calculated based on actual gas and electric usage normalized over total pounds of product harvested within the 2021 calendar year making the **carbon intensity 3.79 lb CO₂/ lb tomato***. And it is important to remember that as yields continue to improve, AppHarvest expects the carbon intensity to improve.

**Carbon emissions are calculated using information on carbon factors from the U.S. Energy Information Administration and our local utility, Eastern Kentucky Power Cooperative.*



SUSTAINABILITY COMMITTEE CHAIR

KIRAN BHATRAJU



PRIORITIZING RECYCLING

Recycling is a standard across all AppHarvest operations. At each location, recycling efforts have buy-in and accountability at the highest levels of leadership. All recycling streams are accompanied by eye-catching and informative signage and are audited regularly to ensure contamination is minimized.

Our waste streams can be separated into three groups: organic, non-organic and construction waste. As our indoor farming operations continue to grow, so do the accompanying leaves, vines and stumps from the plants. We prioritize a recycling solution for organic waste because of the greenhouse gas emissions that plants release as they decompose in a landfill. Composting organic materials reduces those emissions.

Similarly, we focus on recycling non-organic and construction materials to avoid material ending up in a landfill. Non-organic materials are often made up of items that can be reused or repurposed, such as wooden pallets and cardboard. We set the bar high with a goal of a 50% landfill diversion rate for organic, non-organic and construction waste streams. Our recycling is made possible through partnership with local recycling centers and businesses within Eastern Kentucky.

PROGRAM SPOTLIGHT: CONSTRUCTION RECYCLING

The EPA reports 2018 construction and demolition debris accounted for more than twice the amount of municipal solid waste in the United States.¹⁶ We take special steps to keep construction materials out of the landfill.

With each indoor farm build, we partner with local businesses to take construction-related wooden packaging to a mulching facility where it's turned into a variety of wood-chip types. The facility has a direct partnership with a local playground that then uses the woodchip mulch to line play areas, making it safer for children and their families. This step toward reducing our waste saves the company money and connects us with the community.

MATERIAL RECYCLE RATES

89%

organic waste
diverted from landfill

42%

non-organic waste
diverted from landfill

58%

Richmond
construction waste
diverted

60%

Berea construction
waste diverted

45%

Somerset
construction waste
diverted

*Note: Construction projects were 65%, 65% and 50% complete at Richmond, Berea and Somerset, respectively, as of Dec. 31, 2021.





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2021 SASB Index and ESG KPI Table

Many environmental, social and governance (ESG) ratings use scoring systems that compare performance in an industry sector, distinguishing between the ESG leaders and laggards in a sector. The challenge for controlled environment agriculture is that the universe of public companies is too small and the sector too young to have a defined sector with measurable benchmarks. ESG scoring that compares AppHarvest to other sustainable sectors, such as renewable energy, we believe is less useful due to the differences in material issues by sector.

We have developed a set of benchmarks based on a materiality assessment that we believe measures and verifies our ESG performance – along with our B Corp score where B Labs, an independent third-party, measures a wide range of ESG issues. We have also developed a set of goals for our own performance to serve as clear targets and to help define priorities from both budget and staffing perspectives.

The Sustainability Accounting Standards Board (SASB) publishes an assessment of ESG risks by sector based on a multi-stakeholder process to provide input, public comment and guidance on risk. These standards are publicly available [here](#).

Tier I materiality assessment issues and ESG key performance indicators (KPI) as of Dec 31, 2021, unless otherwise noted.

References

- <https://www.wri.org/insights/how-sustainably-feed-10-billion-people-2050-21-charts>
- <https://www.fao.org/3/i7959e/i7959e.pdf>
- <https://www.sciencedirect.com/science/article/pii/S0160412019315855>
- <https://www.epa.gov/nutrientpollution/sources-and-solutions-agriculture>
- <https://www.ipcc.ch/sr15/>
- <https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM-Approved-Microsite-FINAL.pdf>
- <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>
- <https://www.latimes.com/california/story/2021-12-31/u-s-blocks-tomato-shipments-from-mexican-farms-accused-of-abusing-workers>
- https://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf
- <https://www.feedingamerica.org/hunger-in-america/kentucky>
- <https://www.nationalgeographic.com/magazine/article/holland-agriculture-sustainable-farming>
- <https://www.fao.org/documents/card/en/c/cb4769en>
- <https://www.iucn.org/news/secretariat/201709/severe-threats-biodiversity-neonicotinoid-pesticides-revealed-latest-scientific-review>
- <https://www.ams.usda.gov/sites/default/files/media/2016PDPAnnualSummary.pdf.pdf>
- <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>
- <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/construction-and-demolition-debris-material>

*Data as of March 31, 2022. We prioritize the hiring, developing and retention of a local labor force capable of performing at a high level. In order to forestall any potential labor shortfall, we have hired contract laborers from outside of the region to help complete our next harvest. Note that AppHarvest's employee head count does not include temporary workers and our statements regarding employees in this report do. AppHarvest employees self-report gender and ethnicity. We define racial minority as employees that report outside of "white" and "choose not to disclose". We define female as employees that report "female". Note that headcount and diversity numbers fluctuated throughout 2021 due to this being our first year of operations and the first time the majority of our employees worked in CEA.

AppHarvest Material Tier I Issue	ESG KPI	SASB Aligned Issue	Code
ENVIRONMENTAL			
Water Use & Pollution	(1) 100% rain water (2) 2.08 gal/lb tomato	Water Management (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	FB-AG-140a.1
	p. 23	Water Management: Description of water management risks and discussion of strategies and practices to mitigate those risks	FB-AG-140a.2
	p. 23	Water Management: number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	FB-AG-140a.3
GHG Emissions	3.79 lbs CO2/lb product	Greenhouse Gas Emissions: Gross global Scope 1 emissions	FB-AG-110a.1
Climate Change Vulnerability	p. 26	GHG Emissions: Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	FB-AG-110a.2
Energy Use	(1) 1.47 KWh/lb product, 0.02 MCF/lb product (2) 100% PJM grid electricity (3) Eastern Kentucky Power Cooperativesource of electricity 1% renewable electricity	Energy Management: (1) Operational energy consumed, (2) percentage grid electricity, (3) percentage renewable	FB-AG-130a.1
Food Waste	0% product sent to landfill, compost or industrial uses		
SOCIAL			
Social Impact of Product	100% product in 2021 is tomatoes, nutritional fruit. See p. 25 for discussion of integrated pest management		
Labor Practices	100% living wage jobs 2021 SMETA Audit on p. 17		
Workplace Health & Safety	4.9 TRIR 2.8 DART rate	Workforce Health & Safety	FB-AG-320a.1
Diversity & Inclusion*	Racial diversity All employees: 8% Managers: 15% Full-time: 8% Part-time: 29% Female employees All employees : 35% Managers: 27% Full-time: 35% Part-time: 43%		
Food Quality & Safety	GFSI audit score 97% (1) 1 non-conformance (2) 0 major written ATP program and testing procedure	Food Safety: GFSI audit (1) non-conformance rate and (2) associated corrective actions for (a) major and (b) minor conformances	FB-AG-250a.1
	(1) 0 recalls (2) 0 food products	(1) Number of recalls issued and (2) total amount of food product recalled	FB-AG-250a.3
Regional Economic Development	333 KY companies with direct and indirect economic impact		



GRI Content Index

Statement of use	AppHarvest, Inc. has reported the information cited in this GRI content index for the period January 1 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	2021 Form 10-K (Cover Page)
	2-2 Entities included in the organization's sustainability reporting	About This Report
	2-3 Reporting period, frequency and contact point	About This Report
	2-4 Restatements of information	About This Report
	2-5 External assurance	Ethics & Compliance, About This Report
	2-6 Activities, value chain and other business relationships	2021 Form 10-K (Pages 3-4)
	2-7 Employees	Empowering Individuals in Appalachia
	2-8 Workers who are not employees	Empowering Individuals in Appalachia
	2-9 Governance structure and composition	2021 Form 10-K (Pages 90-94), Board-Level Oversight
	2-10 Nomination and selection of the highest governance body	2021 Form 10-K (Page 93-94), Board-Level Oversight
	2-11 Chair of the highest governance body	2021 Form 10-K (Page 88 and 90)
	2-12 Role of the highest governance body in overseeing the management of impacts	Board-Level Oversight
	2-13 Delegation of responsibility for managing impacts	Board-Level Oversight
	2-14 Role of the highest governance body in sustainability reporting	About This Report
	2-15 Conflicts of interest	Ethics & Compliance
	2-16 Communication of critical concerns	2021 Form 10-K (Page 90), Ethics & Compliance
	2-17 Collective knowledge of the highest governance body	Board-Level Oversight
	2-18 Evaluation of the performance of the highest governance body	Ethics & Compliance
	2-19 Remuneration policies	2021 Form 10-K (Pages 102-105)
	2-20 Process to determine remuneration	2021 Form 10-K (Pages 102-105)
	2-21 Annual total compensation ratio	2021 Form 10-K (Pages 95-96)
	2-22 Statement on sustainable development strategy	Letter from the CEO
	2-23 Policy commitments	2021 Form 10-K (Pages 12-13), AppHarvest Corporate Governance
	2-24 Embedding policy commitments	AppHarvest Corporate Governance
	2-25 Processes to remediate negative impacts	AppHarvest Corporate Governance
	2-26 Mechanisms for seeking advice and raising concerns	AppHarvest Corporate Governance
	2-27 Compliance with laws and regulations	2021 Form 10-K (Pages 12-13), AppHarvest Corporate Governance
	2-28 Membership associations	Public Benefit Corporation
	2-29 Approach to stakeholder engagement	Governance, Materiality Assessment, Empowering Individuals in Appalachia, Improve Communities in Which We Operate
	2-30 Collective bargaining agreements	Item does not exist

GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality Assessment
	3-2 List of material topics	Materiality Assessment
	3-3 Management of material topics	Materiality Assessment
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Carbon Strategy
	302-3 Energy intensity	Carbon Strategy
	302-4 Reduction of energy consumption	Carbon Strategy
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Conserving Water
	303-3 Water withdrawal	Conserving Water
	303-5 Water consumption	Conserving Water
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Carbon Strategy
	305-2 Energy indirect (Scope 2) GHG emissions	Carbon Strategy
	305-4 GHG emissions intensity	Carbon Strategy
GRI 306: Waste 2020	306-4 Waste diverted from disposal	Prioritizing Recycling
	306-5 Waste directed to disposal	Prioritizing Recycling
GRI 401: Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Living Wage and Benefits
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Leadership in Safety
	403-6 Promotion of worker health	Healthy Living
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Leadership in Safety
	403-9 Work-related injuries	Leadership in Safety
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Board-Level Oversight, Empowering Individuals in Appalachia
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	AppHarvest Foundation
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Leadership in Safety
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Leadership in Safety



FORWARD-LOOKING STATEMENTS

Certain statements included in this report that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook,” “can,” “goal,” “target” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. All statements, other than statements of present or historical fact included in this report, regarding AppHarvest’s intention to build high-tech CEA farms, the anticipated benefits of and production at such facilities, timing and availability of tomatoes at top national grocery stores and restaurants, anticipated benefits of the second season harvest, AppHarvest’s future financial performance, as well as AppHarvest’s growth and evolving business plans and strategy, ability to capitalize on commercial opportunities, future operations, estimated financial position, projected costs, prospects, plans and objectives of management are forward-looking statements. These statements are based on various assumptions, whether or not identified in this report, and on the current expectations of AppHarvest’s management and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on as, a guarantee, an assurance, a prediction, or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. Many actual events and circumstances are beyond the control of AppHarvest. These forward-looking statements are subject to a number of risks and uncertainties, including those discussed in the company’s Quarterly Report on Form 10-Q filed with the SEC by AppHarvest on May 3, 2022, under the heading “Risk Factors,” and other documents AppHarvest has filed, or that AppHarvest will file, with the SEC. If any of these risks materialize or our assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements. In addition, forward-looking statements reflect AppHarvest’s expectations, plans, or forecasts of future events and views as of the date of this report. AppHarvest anticipates that subsequent events and developments will cause its assessments to change. However, while AppHarvest may elect to update these forward-looking statements at some point in the future, AppHarvest specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing AppHarvest’s assessments of any date subsequent to the date of this news release. Accordingly, undue reliance should not be placed upon the forward-looking statements.

