

BioHarvest Sciences Inc. – Q1 2025 Revenues Increased 47% to \$7.9 Million Exceeding Guidance, Supported by Expanded VINIA® Product Offerings, Continued CDMO Progress, and Targeting EBITDA Breakeven in 2H 2025

BioHarvest Sciences Inc. (NASDAQ: BHST)

Share Price: \$6.27

Valuation: \$18.45

Investment Highlights



Key Statistics

52 Week Range	\$4.66 - \$7.38
Avg. Volume (3 months)	23.78K
Shares Outstanding	17.33M
Market Capitalization	\$108.65M
EV/Revenue	4.9x
Cash Balance*	\$3.40M
Analyst Coverage	4

*Cash balance as of March 2025

Revenue (in \$mm)

Dec - FY	2024A	2025E	2026E
Q1	5.34	7.86	15.11
Q2	6.03	9.06	18.05
Q3	6.54	10.95	22.18
Q4	7.27	12.84	24.08
FY	25.18	40.71	79.42

EPS (in \$)

Dec - FY	2024A	2025E	2026E
Q1	(0.48)	(0.13)	(0.01)
Q2	(0.04)	(0.10)	0.02
Q3	(0.16)	(0.06)	0.04
Q4	(0.17)	(0.04)	0.07
FY	(0.80)	(0.33)	0.12

Stock Price Chart (in \$)



- Q1 Results Surpass Expectations on VINIA Strength and Operating Efficiencies:** BioHarvest Sciences reported robust financial performance for the first quarter of 2025, with revenue rising 47% year-over-year to \$7.9 billion, surpassing both management guidance and our estimates of \$7.82 million. The growth was primarily driven by continued momentum in the VINIA product line, which exceeded 50,000 active subscribers as of February 2025. Gross Profit rose 53% to \$4.6 million, with gross margins improving to 58.5% from 56.2% in Q1 2024, benefiting from increased manufacturing scale and better yields. Operating expenses increased to \$6.3 million from \$4.4 million due to higher marketing spend and expanded CDMO operations, though marketing as a percentage of revenue declined to 46.8% from 48.0% in Q1 2024. General and administrative expenses increased 67% year-over-year but declined 6% as compared to the fourth quarter of 2024, reflecting improved operating efficiency. The company reported a net loss of \$2.3 million, or \$0.13 per share, representing a notable improvement over the prior-year loss of \$6.6 million and exceeding our expectation of a loss of \$0.16 per share. The company concluded the quarter with an improved cash position of \$3.4 million, compared to \$2.4 million at the end of 2024, supported by \$3.9 million in debt financing secured primarily from existing investors. Looking ahead, management guided for second quarter 2025 revenues of at least \$8.5 million and anticipates reaching adjusted EBITDA break-even in the second half of the year.
- Expanding VINIA® Product Lines and Accelerating CDMO Pipeline with Robust Near-term Targets:** BioHarvest plans to further extend its "VINIA® Inside" strategy by introducing new product lines, including VINIA® SuperFood Tea in K Cup® compatible pods, VINIA® Espresso in Nespresso®-compatible pods, and the forthcoming VINIA® 2X Formula Daily Chews, aimed at capturing incremental revenues from a younger, high-growth consumer segment. To support these launches, the company is expanding into new marketing channels, such as podcast integrations, TikTok, and Health & Wellness influencer programs. The company is also progressing its Olive Cell initiative, which has shown promising in vitro results in reducing liver fat accumulation, with commercial launch as a nutraceutical product targeted for 2026. Within its CDMO division, BioHarvest is advancing projects rapidly, leveraging robust laboratory infrastructure and proprietary AI-driven R&D processes to develop sustainable, plant-based, non-GMO biologic compounds for pharma, nutraceutical, nutrition, and cosmetics industries. Recent achievements include the progression of a pharma CDMO contract into Stage 2 and the initiation of Stage 1 tissue-culture activities with Tate & Lyle to co-develop next-generation plant-based sweeteners. BioHarvest anticipates signing several additional CDMO agreements by year-end, supported by a strong near-term contract pipeline across targeted industry verticals. In our view, BioHarvest's clearly defined roadmap for new product launches and an active CDMO pipeline enhance visibility on near-term growth drivers, reinforcing our confidence in the company's ability to execute its strategic vision effectively.

Company Description

BioHarvest Sciences Inc. specializes in botanical and cellular-based health solutions through its patented Botanical Synthesis technology, focusing on nutraceuticals, pharmaceuticals and CDMO services.

- **BioHarvest Sciences Successfully Completes Stage 1 of Key CDMO Contract with Nasdaq-Listed Pharmaceutical Company, Validating Versatile Botanical Synthesis Platform:** BioHarvest Sciences announced the successful completion of Stage 1 of its previously disclosed CDMO contract with a Nasdaq-listed pharmaceutical client, advancing the project into Stage 2. Stage 1 involved isolating and multiplying the target plant cells required to produce an approved drug compound, leveraging BioHarvest’s proprietary Botanical Synthesis technology. Progression to Stage 2 involves optimizing biomass growth conditions in liquid media and delivering biomass samples suitable for client testing, ultimately paving the way for commercial-scale production. Contract size and commercial potential typically increase significantly in Stage 2 of CDMO engagements. This development significantly validates the versatility and commercial applicability of BioHarvest’s Botanical Synthesis platform across diverse molecule types, positioning the company as a trusted provider of scalable, cost-effective solutions in the pharmaceutical and nutraceutical sectors. The successful transition to Stage 2 notably reduces technical risks, significantly increases the probability of success, and demonstrates BioHarvest’s strengthened analytical and AI capabilities developed through this engagement. In our view, this milestone emphasizes the strategic value and broad applicability of BioHarvest’s technology, potentially accelerating additional CDMO opportunities and providing a robust validation of its ability to execute technically demanding pharmaceutical projects.
- **Valuation:** The company is well-positioned for continued growth, driven by expansion in the VINIA product line, a growing subscriber base, and new CDMO partnerships. Its proprietary Botanical Synthesis platform is well-positioned to benefit from rising global demand for health and wellness solutions. With a strategic focus on profitable growth, the company’s scalable model provides meaningful opportunities for margin expansion supported by inherent operating leverage. Reflecting the strong Q1 2025 financial performance and encouraging management guidance, we have marginally adjusted our operating expense estimates and reassessed our comparable company analysis, yielding a valuation of \$18.45 per share, contingent on successful execution by the company.

Company Overview

BioHarvest Sciences Inc., founded in 2007 in Israel, is a biotechnology company advancing the production of botanical and cellular-based solutions in the health sector. The company's operations are centered in Israel, with operational footprints through subsidiaries in the USA. The company specializes in developing botanical and cellular-based health solutions through its innovative Botanical Synthesis technology. This patented platform allows for the industrial-scale cultivation of active plant ingredients directly from cells, eliminating the need for traditional agriculture. This technology supports the production of high-purity, non-GMO phyto-medicinal molecules and is safeguarded by 14 granted patents, supporting BioHarvest Sciences' commitment to technological innovation and environmental sustainability. The company operates through two major business segments: the Product Business Unit and the Services Business Unit. The Product Business Unit focuses on the development, manufacturing, and marketing of nutraceuticals, while the Services Business Unit is centered around the company's capabilities as a Contract Development and Manufacturing Organization (CDMO), offering comprehensive solutions to clients across various industries.

BioHarvest Sciences Inc. specializes in botanical and cellular-based health solutions through its patented Botanical Synthesis technology, focusing on nutraceuticals, pharmaceuticals and CDMO services

Within the **Product Business Unit**, BioHarvest Sciences has successfully brought to market VINIA®, a bioactive red grape powder that encapsulates the antioxidant benefits of red wine without the associated sugars, calories, or alcohol. Developed using the company's proprietary Botanical Synthesis technology, VINIA® is rich in polyphenols, particularly piceid resveratrol, which is recognized for its cardiovascular and vasodilatory benefits. This flagship product has undergone vigorous clinical trials and has been commercialized in the USA and in Israel, and achieved Canadian regulatory approval in 2023. The company is actively pursuing expansion into key markets, including the EU, UK, Canada, and China. BioHarvest Sciences has committed substantial resources to R&D, investing over \$100 million in its proprietary Botanical Synthesis technology; an investment which facilitated the development of a disruptive technology platform that mirrors natural processes to maximize the bioavailability and efficacy of active ingredients. The company's manufacturing capabilities have also expanded significantly, with a 20-ton facility that adheres to Good Manufacturing Practice (GMP) standards and has received key ISO certifications. This facility is pivotal in scaling production to meet the rising demand, particularly in the U.S. market, where VINIA® has seen a 130% revenue increase in FY2023 and a 99% revenue increase in FY2024. BioHarvest Sciences plans to expand its nutraceutical portfolio with new products targeting significant markets such as coffees, teas and electrolyte-enhanced beverages. Additionally, the company also plans to explore the cosmeceutical market, starting with skincare products. These initiatives are part of a broader strategy to fully utilize the Botanical Synthesis technology not only within nutraceuticals but also in various multi-billion-dollar industries such as pharmaceuticals, cosmeceuticals, and food & beverages.

In parallel, the **Services Business Unit** aims to capitalize on BioHarvest Sciences' unique Botanical Synthesis capabilities through its contract development and manufacturing (CDMO) operations. This division offers end-to-end development and manufacturing solutions to clients in the pharmaceutical, cosmeceutical, nutraceutical, and nutrition industries, targeting large CDMO markets in North America, Europe, and Asia. By doing so, the company further diversifies its business model and strengthens its market position. As BioHarvest Sciences continues to expand

its technological and commercial footprint, it remains focused on innovation, sustainable practices, and the strategic development of its operational divisions.

Transformative Botanical Synthesis: Revolutionizing Industrial-Scale Botanical Ingredient Production for Large Markets

BioHarvest Sciences has developed a revolutionary approach to botanical ingredient production with its patented Botanical Synthesis platform technology. This innovative method enables the company to cultivate the active and beneficial ingredients inherent in specific fruits and plants at an industrial scale, without the necessity to grow the entire plant. This technology is distinctive as it is the only non-GMO platform capable of producing plant cells with significantly higher concentrations of active ingredients than those produced naturally. It also ensures extremely high levels of solubility and bioavailability of these ingredients.

The Botanical Synthesis technology offers several critical advantages. It provides consistent product production, enables a year-round production cycle, and produces products that are free from sugars, calories, and contaminants such as insecticides, fungicides, herbicides, chemical solvents and residues. This positions BioHarvest Sciences as a leader in clean and sustainable biotechnology. Moreover, the technology seeks to accomplish in just 21 days what typically takes two years in nature, allowing for up to 17 production cycles per year. This efficiency is critical for scaling operations to meet increasing market demand rapidly. Additionally, this method requires 99.99% less land and remarkably less water and energy than traditional agriculture production, significantly reducing the environmental impact associated with large-scale farming.

Historically, the pharmaceutical industry has faced significant challenges in harnessing the therapeutic potentials of plants due to inconsistencies in traditional extraction methods and difficulties in securing intellectual property rights for plant-based molecules. BioHarvest's Botanical Synthesis process addresses these challenges by offering an industrial-scale process to economically produce patentable plant-based molecules with the highest levels of consistency and purity. This capability opens up nearly infinite sources of molecules for pharmaceutical applications, providing new solutions for preventative medicine and addressing unmet medical needs.

BioHarvest Sciences' patented Botanical Synthesis platform allows for industrial-scale production of active ingredients from plants without growing the entire plant. This non-GMO technology produces plant cells with higher concentrations of active ingredients and ensures high solubility and bioavailability

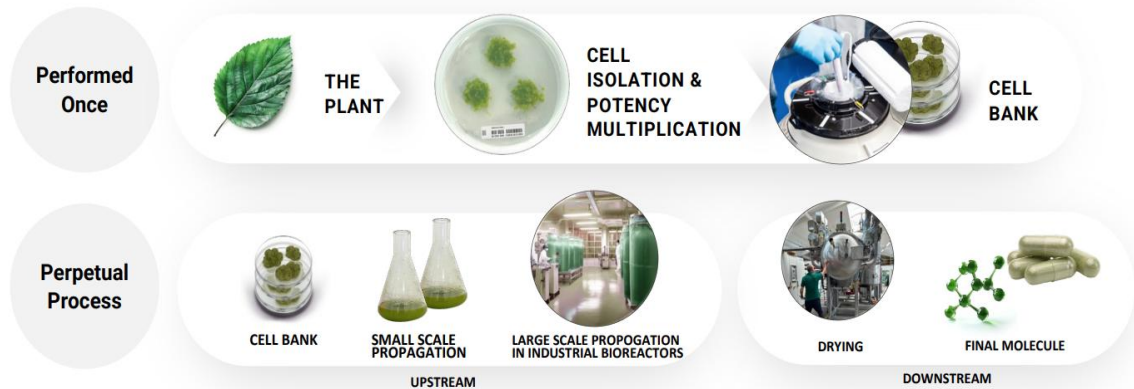


Exhibit 1: BioHarvest Botanical Synthesis Technology. Source: Investor Presentation

BioHarvest Sciences' Botanical Synthesis technology has demonstrated significant success in transforming the production of plant-based ingredients. This is notably evidenced in the development and commercialization of VINIA®, a product that has become the first commercial validation of this innovative platform. Using the Botanical Synthesis process, the company has successfully achieved an impressive 100 times the concentration of Piceid resveratrol that is naturally present in red grapes. This high-potency polyphenol is the key active ingredient in VINIA®, providing enhanced health benefits far exceeding those available from conventional grape extracts. Each 400mg capsule of VINIA® contains pure red grape cell powder, produced directly from the bioreactors in a controlled, clean, and sustainable manner.



Exhibit 2: BioHarvest's Continuous Botanical Production Process. Source: Company Website

The process involves cultivating red grape cells in bioreactors, which are set to generate crops in rapid 21-day cycles. After each cycle, the contents are harvested and dried to create the red grape cell powder. This cycle is perpetually repeated, ensuring a consistent supply of the product without ever needing to return to the original plant for re-cultivation.

BioHarvest Sciences currently operates a production facility in Rehovot, Israel. This facility is designed to produce up to 20 metric tons of botanical compounds per year. To expand its capacity, BioHarvest has signed two key agreements: a long-term lease for an 80,000-square-foot facility in Yavne, Israel, and an agreement for the purchase of 12 GMP clean rooms. These facilities are equipped with labs, offices, and spaces that can support an expanded production capacity.

The company plans to move its Research & Development and administrative offices to the new Yavne site within the next 2-3 quarters. This new campus will eventually consolidate all R&D functions and include a new manufacturing facility, projected for completion in 2025, with a capacity of 50 tons. This expansion will help accommodate growing production demands.

BioHarvest Sciences' Botanical Synthesis process ensures consistent, controlled production of highly pure, patentable, and bioavailable plant-derived molecules, while also being economically viable and environmentally sustainable

Advantages of the Botanical Synthesis Process

BioHarvest Sciences' Botanical Synthesis process presents several compelling advantages that significantly enhance the production and utility of plant-derived molecules, aligning with both industry and environmental needs.

Consistency and Control: One of the foremost benefits of the Botanical Synthesis process is its ability to achieve a level of consistency and control over production that is unattainable in natural environments. This controlled setting allows for the production of uniform and stable products batch after batch, reducing the variability often seen in traditional agricultural methods.

Patentability of Unique Compositions: The Botanical Synthesis technology facilitates the production of unique botanical compositions with concentrations of active ingredients that are not achievable in nature. This capability not only enhances the effectiveness of these compositions but also meets the criteria for patentability, providing BioHarvest with valuable intellectual property and a competitive edge in the marketplace.

Enhanced Bioavailability: The process maintains the original molecular conformation of metabolites, which is crucial for optimal bioavailability. This ensures that the active ingredients are more readily absorbed and utilized by the body, potentially increasing the therapeutic effectiveness of the products.

Cleanliness and Purity: BioHarvest's technology operates under strictly aseptic growth conditions, which eliminates the risk of contamination from insecticides, herbicides, chemical solvents and residues. This inherent cleanliness guarantees that the final products are pure and safe for consumption.

Environmental Sustainability: The Botanical Synthesis process is markedly more sustainable than traditional agricultural practices. It requires significantly fewer resources such as land, water, and electricity. Importantly, after the initial extraction from the 'real' plant, the cells can be replicated indefinitely without the need for replanting, dramatically reducing the ecological footprint of production.

Economic Viability: Economically, the Botanical Synthesis process is highly viable due to the efficiency of growing cells directly in bioreactors, which can be harvested every three weeks, resulting in up to 17 harvest cycles per year. This frequent harvesting capability leads to a substantial reduction in production costs compared to conventional methods, enhancing the economic scalability of the operation.

BioHarvest's Pioneering Approach to Nutraceuticals

Nutraceuticals, a portmanteau of "nutrition" and "pharmaceuticals," are products derived from food sources with extra health benefits in addition to their basic nutritional value. These products can prevent disease, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body. Nutraceuticals are categorized into dietary supplements, functional foods, and medicinal foods, each offering specific health benefits through concentrated forms of bioactive compounds such as polyphenols, vitamins, minerals, amino acids, and enzymes.

Nutraceuticals have gained prominence due to their ability to address a wide range of health issues—from everyday wellness to chronic conditions—without the side effects often associated with pharmaceutical drugs. They align well with the growing consumer preference for natural and organic products and fit seamlessly into preventative healthcare regimes that increasingly define global health trends. The appeal of nutraceuticals is their ability to offer health-enhancing benefits in natural forms, such as superfoods. Superfoods are typically packed with a high concentration of vital nutrients and antioxidants that offer superior health benefits. They include foods like

BioHarvest Sciences' Nutraceutical division uses its proprietary Botanical Synthesis technology to create scientifically validated, high-quality nutraceuticals with enhanced bioavailability

berries, leafy greens, nuts, and seeds, which are known for their ability to reduce the risk of chronic diseases and improve overall health. The popularity of superfoods has strengthened the nutraceutical market, providing consumers with potent, concentrated options that are both effective and easy to incorporate into daily diets.

BioHarvest Sciences' Nutraceutical division leverages its proprietary Botanical Synthesis technology to create high-quality nutraceutical products that are scientifically validated and supported by rigorous clinical trials. The division focuses on harnessing the power of plant-based ingredients, utilizing the cellular constituents of fruits and plants to produce highly concentrated nutraceuticals with enhanced bioavailability and efficacy. It specializes in the research, development, manufacturing, marketing, and sales of science-based therapeutic nutraceutical solutions. These products are available in various forms, including capsules, and innovative VINIA® Inside delivery mechanisms like infused coffee and teas. This diverse range of formats ensures that consumers can integrate these health-enhancing products seamlessly into their daily routines, catering to a broad spectrum of lifestyle and dietary preferences.

VINIA: Premier Red Grape Nutraceutical for Consumers

VINIA® is BioHarvest Sciences' inaugural commercial product, demonstrating the company's novel approach to nutraceutical development. This proprietary product is derived from the red grape (*Vitis vinifera*) and utilizes the entire matrix of red grape polyphenols, prominently featuring Piceid Resveratrol. Produced in BioHarvest's proprietary bioreactor facilities, VINIA® is a fine, dry, pink-purple powder that preserves the natural state of polyphenols found in red wine, offering their health benefits without the use of solvents or genetic modification.



Exhibit 3: VINIA® Production Process. Source: Company Website

VINIA® significantly amplifies the concentration of Piceid Resveratrol, a key health-promoting compound in red grapes, by at least 100 times compared to regular grapes. This enhanced concentration is achieved through BioHarvest's Botanical Synthesis process, which not only increases the potency of the active ingredients but also maintains their synergy and natural benefits. The result is a product that delivers the cardiovascular and cognitive benefits of red wine consumption—increasing blood flow and improving mental alertness—without the sugar, calories, or alcohol. VINIA® works through a dual-action effect that involves increasing Nitric Oxide (NO) while reducing Endothelin-1 (ET-1), a vasoconstrictor that can be harmful in excess. By modulating these two compounds, VINIA® promotes the relaxation and dilation of arteries, enhancing blood flow and thereby increasing the delivery of oxygen and nutrients to vital organs such as the heart and brain. This improved vascular function can lead to enhanced overall energy

VINIA®, BioHarvest Sciences' first product, is a red grape-derived nutraceutical with 100 times the Piceid Resveratrol concentration of regular grapes, achieved through their Botanical Synthesis process

levels and mental alertness. The bioavailability of VINIA’s Piceid Resveratrol is notably high. After ingestion, it begins entering the bloodstream in approximately 20 minutes, with peak plasma levels reached within about one hour. Remarkably, VINIA® achieves a second peak at around five hours and remains bioactive in the bloodstream for up to 12 hours. This prolonged bioactivity significantly extends the health benefits, unlike regular Resveratrol, which typically peaks quickly and is then rapidly cleared from the body.

Distribution and Consumer Engagement of VINIA

BioHarvest employs a comprehensive distribution strategy that spans B2C, direct-to-consumer (D2C) channels, and incentive-based programs such as direct-to-doctor. This approach ensures broad market coverage and accessibility, tapping into diverse consumer bases and business partnerships to maximize reach and impact.

Multi-Channel Distribution Strategy

B2C and D2C Channels: VINIA® is actively marketed and sold directly to consumers, primarily through its own dedicated website, VINIA.com, and major online retailers, such as Amazon. These platforms cater to different consumer needs:

- **VINIA.com:** This platform serves as the primary D2C channel, offering detailed product information, customer testimonials, and subscription options. It allows BioHarvest Sciences to engage directly with consumers, providing comprehensive support and fostering a strong brand relationship.
- **Amazon:** As a major B2C channel, Amazon broadens VINIA’s reach, tapping into a vast customer base and benefiting from the platform's robust logistics and customer service infrastructure.

Direct-to-Doctor Channels: In addition to consumer sales, VINIA® is also distributed through a select group of integrative medicine practitioners. This channel leverages referral codes/specific sales arrangements with doctors who recommend VINIA® to their patients. By integrating VINIA® into the healthcare provider’s recommendations, BioHarvest taps into the professional health sector, gaining credibility and trust from consumers who rely on their doctor’s advice for health-related products.

VINIA®, BioHarvest Sciences' flagship product, uses multiple distribution channels such as B2C, D2C, and incentive based sales program to ensure broad market coverage and accessibility

Subscription-Based Model Acts as a Revenue Engine

A significant aspect of VINIA’s sales strategy is its subscription-based model, which has proven highly effective in fostering a stable revenue stream. Approximately 90% of the revenue generated from VINIA.com comes from recurring subscriptions, demonstrating the product's strong consumer retention and consistent demand. Notably, over 95% of these subscribers are committed to subscriptions of 3 months duration or more, indicating high customer satisfaction and the perceived value of continued use of the product. This subscription model not only ensures a predictable and steady income flow for BioHarvest Sciences but also reflects the trust and loyalty of customers who experience ongoing benefits from VINIA®. It also aligns with consumer

VINIA's subscription-based sales model generates 90% of its revenue, with 95% of subscribers maintaining their subscriptions for three months or more, reflecting high customer satisfaction and stable revenue for BioHarvest Sciences

preferences for hassle-free, regular deliveries of their health supplements, further enhancing customer engagement and satisfaction.

Social Proof as a Catalyst for Brand Growth

VINIA's quality and effectiveness are further validated by strong social proof, evidenced by a high consumer rating. The product boasts an impressive average rating of 4.8 out of 5 based on approximately 8,500 reviews (VINIA® customers are encouraged to submit uncensored feedback, and receive a 30 day supply when they submit a review, whether positive or negative). This high level of customer satisfaction serves as a powerful endorsement, helping to attract new users and retain existing customers by reinforcing the product's credibility and effectiveness.

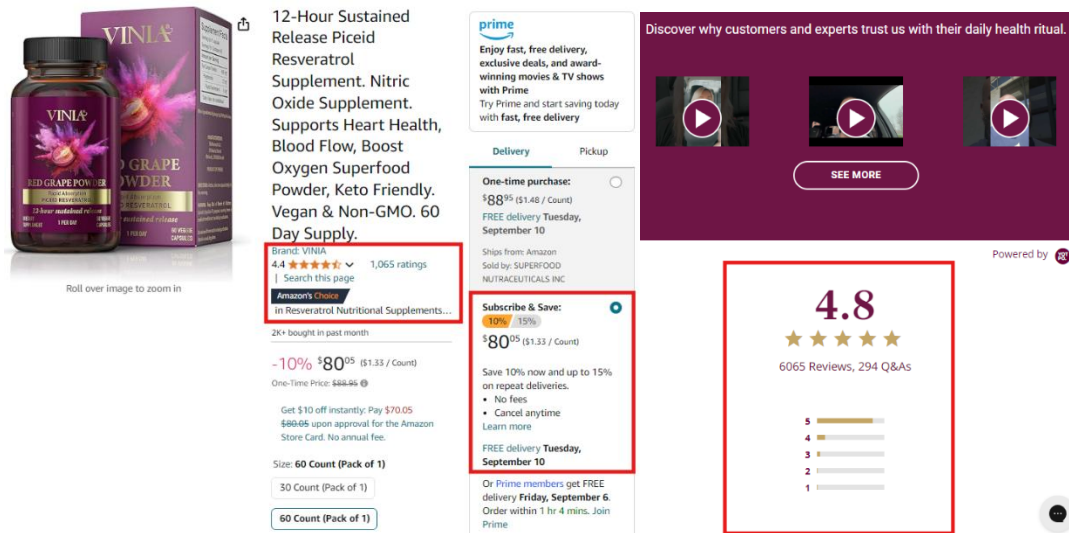


Exhibit 4: VINIA Reviews Showcase Consumer Satisfaction. Source: VINIA.com, Amazon.com

VINIA Product Line Growth: Horizontal Expansion into Lucrative New Markets

BioHarvest has announced an ambitious expansion plan for its VINIA® product line, aiming to grow from three SKUs to over ten by the second half of 2025. This move will introduce VINIA® into new consumption categories within the Food & Beverage and Nutraceuticals markets, further solidifying its presence and impact.



Exhibit 5: VINIA Expanding Product Line. Source: Investor Presentation

Since its US launch in 2021, VINIA® has seen substantial revenue growth and market penetration, supported by the positive experiences of over 50,000 consumers. Analyzing the data from these users, BioHarvest identified significant opportunities to leverage VINIA's blood flow benefits and expand into three major product categories:

1. **Hot Beverages:** With an estimated annual consumption of 2.6 billion coffee pods in North America, this market represents a significant opportunity for VINIA®. BioHarvest has developed a new functional coffee product line featuring VINIA® Red Grape Superfood, enhancing physical energy and mental alertness without caffeine. Medium Roast and Decaffeinated functional coffees have been launched, available in Keurig compatible pods. Nespresso® compatible pods will be introduced in 2024, plus a range of teas featuring English breakfast, black and green teas, available in both Keurig compatible pods and tea bags.
2. **Electrolyte Beverages:** The electrolyte beverage market in North America is projected to be a \$15.3 billion USD opportunity. VINIA's entry into this market aims to offer a unique, health-enhancing alternative to existing products.
3. **Cosmeceuticals:** Over the past year, BioHarvest has identified significant opportunities for its red grape cell and olive cell molecules in the growing beauty and therapeutic skincare market, worth approximately \$20 billion USD in the USA. Initial small-scale assessments in Seoul, South Korea, showed positive feedback regarding skin ailments when respondents ingested red grape cell molecules. BioHarvest is now developing topical formulations for larger clinical trials, with the first skincare solution expected to launch in the coming years.

Since its 2021 launch, VINIA® has grown rapidly, with over 50,000 users. BioHarvest aims to expand VINIA® into functional coffee pods, electrolyte beverages, and cosmeceuticals, targeting multi-billion-dollar markets

BioHarvest has identified strategic manufacturing partners within each of these categories, ensuring the successful integration of VINIA® into unique delivery systems. These partnerships are designed to maintain VINIA's superior science and functionality while delivering an exceptional taste experience. The first products, including VINIA® functional coffees, are

expected to disrupt the North American coffee pod market, providing consumers with a convenient way to enjoy the health benefits of VINIA®.

VINIA Superfood Coffee

BioHarvest has recently introduced an innovative "functional" coffee product line featuring its flagship nutraceutical product, VINIA® Red Grape Superfood. This launch represents a significant advancement in BioHarvest's strategy to integrate health-enhancing nutraceuticals into everyday consumption patterns, potentially disrupting the \$6 billion North American coffee pod market.

VINIA® Superfood Coffee contains 100% premium Arabica beans infused with red grape polyphenols, delivering all the benefits of VINIA®. Each Medium Roast and Decaf VINIA® Superfood Coffee Pod includes 23 mg of polyphenols, equivalent to one VINIA® capsule, and is compatible with Keurig® (K-cups) and most single-serve brewing systems. VINIA® Superfood functional coffees are expected to be also available in 2024 in Nespresso® compatible pods, and the company has also announced tea products for its hot beverages business, including black and green teas.

BioHarvest has launched VINIA® Superfood Coffee, infusing premium Arabica beans with red grape polyphenols. Each pod contains 23 mg of polyphenols and is compatible with Keurig® and most single-serve systems, targeting the \$6 billion North American coffee pod market



Exhibit 6: VINIA Coffee Packaging – Decaf and Medium Roast. Source: VINIA.com

The expansion strategy includes partnering with top industry players to ensure superior product delivery. For instance, BioHarvest has collaborated with Seattle-based Joe’s Garage, one of the world’s top coffee makers, to develop a unique functional coffee that excels in taste. This partnership has already yielded positive results in blind taste-tests, where VINIA® Superfood Coffee was preferred by coffee drinkers over a leading functional coffee national brand, and VINIA® Superfood DECAF was favoured over a top-selling decaf brand on Amazon.

VINIA Superfood Functional Tea

In November 2024, BioHarvest launched a new line of VINIA® SuperFood Functional Teas, introducing four premium blends—Black Tea, Green Tea, Matcha Green Tea, and Cranberry Hibiscus Herbal Tea. This product line, infused with piceid resveratrol equivalent to one VINIA® capsule, builds on the success of VINIA® supplements and coffee, offering circulatory health

benefits alongside enhanced taste and efficacy. Third party blind taste testing shows BioHarvest’s VINIA® infused teas outperformed leading English Breakfast and Green Tea brands.



Exhibit 7: VINIA Superfood Functional Tea –Four Premium Blends. Source: Press Release

Sourced from Rainforest Alliance-certified farms, the teas aim to disrupt the \$3.3 billion North American functional tea market. The launch aligns with BioHarvest’s “VINIA Inside” strategy, leveraging cross-category applications to attract younger consumers and drive higher gross profit margins.

Expanding BioHarvest Sciences' Nutraceutical Success: Mirroring the VINIA Model with New Plant-Based Innovations

Building on the success of VINIA®, BioHarvest Sciences plans to replicate its proven business model by mirroring a variety of natural plant-based molecules and expanding their production in large quantities through industrial manufacturing.

The company is strategically preparing to introduce two new products: Olive cell product, slated for release in H1 2025, and Pomegranate cell product, expected in H1 2026. These products are designed to capitalize on the unique properties of olive and pomegranate cells:

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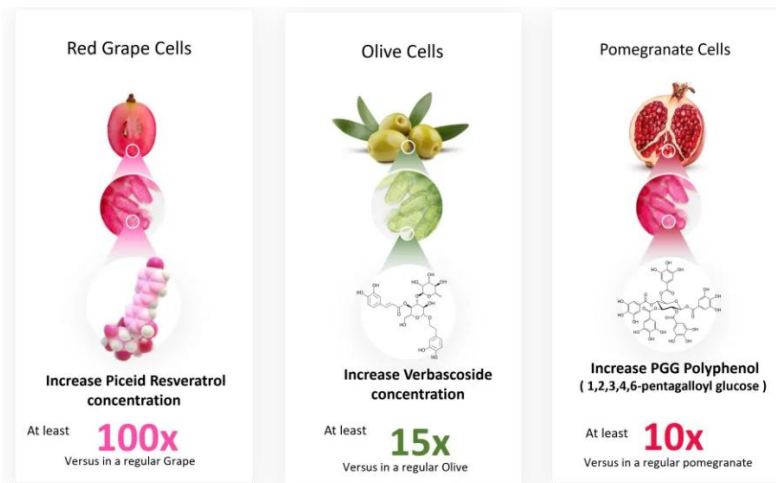


Exhibit 8: BioHarvest's Botanical Synthesis Technology Significantly Magnifies Beneficial Phytonutrients Compared to Regular Plant Cells. Source: Company Website

Olive Cell Product: This product will potentially offer up to 15 times the concentration of Verbascoside compared to regular olives. Verbascoside is recognized for its antioxidant, anti-inflammatory, and antineoplastic properties, and it may also contribute to wound healing and neuroprotection.

Pomegranate Cell Product: Aimed at harnessing the health benefits of PGG Polyphenol (1,2,3,4,6-pentagalloyl glucose), this product will contain this compound at concentrations potentially 10 times greater than found in standard pomegranates. PGG Polyphenol is noted for its anti-microbial, anti-diabetic, anti-inflammatory, and antitumor properties.



Exhibit 9: Upcoming Olive Cell and Pomegranate Cell Products. Source: Company Website
For Illustration purposes only. Trademarks are placeholders

Nutraceuticals Market Growth Fuelled by Innovation and Consumer Demand

Nutraceuticals are distinctive products that blend the fields of nutrition and pharmaceuticals, offering health benefits that extend beyond basic dietary needs. Found in various forms, such as capsules, tablets, drinks, and fortified foods, nutraceuticals often contain beneficial ingredients like vitamins, minerals, herbs, amino acids, and other natural substances. These innovative products are designed to promote wellness and enhance health, bridging the gap between food and medicine with their scientifically-backed benefits. The global nutraceuticals market was valued at \$317 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 9.6% from 2024 to 2030, with North America accounting for the largest revenue share at 34.9%.¹ The following factors contribute to the growth of the nutraceuticals market:

Rising consumer awareness about the importance of health and wellness has led to increased demand for nutraceuticals. Consumers are increasingly opting for self-directed care to manage lifestyle disorders such as cardiovascular diseases and obesity. The **aging global population** and the **rising prevalence of chronic diseases** are prompting more individuals to seek preventive healthcare solutions, further boosting the demand for nutraceutical products. Additionally, positive consumer attitudes towards functional foods, known for their added health and wellness benefits, are contributing to market growth. The COVID-19 pandemic has also accelerated this trend, with a surge in demand for dietary supplements and functional foods, particularly those aimed at boosting immunity. The pandemic has significantly shifted consumer behavior, making **preventive healthcare measures**, including regular use of dietary supplements, a part of everyday life. This shift has solidified the presence of nutraceuticals in the global market.

Technological advancements in the production and formulation of nutraceuticals are making these products more accessible and effective. Innovations such as the adoption of artificial intelligence (AI) are enabling more personalized solutions based on individual dietary and health data. This technological integration is expected to drive further growth in the industry. Additionally, **growing disposable incomes** in emerging economies and increased investment in research and development by key market players are fueling innovation and market penetration. These combined factors are expected to sustain the strong growth trajectory of the nutraceuticals market in the coming years.

BioHarvest is leveraging its innovative Botanical Synthesis technology to explore numerous high-potential applications for its plant-derived molecules, including dietary supplements, hot beverages, hydration powders, and skincare products. The company's VINIA® dietary supplement, made from grape cells, has already demonstrated significant benefits for blood flow and vascular health, making it ideal for athletic recovery and performance enhancement.

The global nutraceuticals market, valued at \$317 billion in 2023, is projected to grow at a compound annual growth rate (CAGR) of 9.6% from 2024 to 2030, with North America holding the largest revenue share at 34.9%

¹ <https://www.grandviewresearch.com/industry-analysis/nutraceuticals-market>

Revolutionizing Biologics Manufacturing with Launch of CDMO Services Targeting Large Markets Using Proprietary Botanical Synthesis Technology

In February 2024, BioHarvest Sciences announced the launch of its new Contract Development and Manufacturing Organization (CDMO) Services Business Unit, marking a significant expansion into service provision within the pharmaceutical, cosmeceutical, nutraceutical, and food & beverages industries. This strategic move leverages the company’s proprietary Botanical Synthesis Process technology, offering industry leaders the opportunity to develop and manufacture novel plant-based biologics, termed by the company as BIOLOGICS+.

Unique Offerings of the Botanical Synthesis CDMO Services

BioHarvest Sciences' approach to molecule development distinctly contrasts with typical Contract Development and Manufacturing Organization (CDMO) services that utilize biosynthesis involving genetically modified organisms, such as yeast. These conventional methods, while effective for simpler molecules, involve complex processes where yeasts are genetically altered to produce target molecules, which are then extracted from the biomass post-mortem. However, such biosynthesis methods are often incapable of producing very complex molecules due to the limitations in the complexity of cells that can be genetically modified.

In contrast, BioHarvest’s Botanical Synthesis Platform Technology excels at producing complex plant-derived molecules. This method does not rely on genetic modification, which can be costly and restricted in terms of molecular complexity. By enabling the production of these complex molecules more effectively, BioHarvest’s technology offers a significant advantage in applications requiring the full spectrum of plant-derived compounds, providing a more natural and potent solution.

BioHarvest Sciences launched a new CDMO Services Business Unit, expanding into pharmaceutical, food & beverages, cosmeceutical, and nutraceutical sectors, using their Botanical Synthesis Process to manufacture novel plant-based biologics, termed BIOLOGICS+

Advantage	Description
Cost-Effectiveness	The technology facilitates lower development and manufacturing costs compared to traditional methods.
Intellectual Property	CDMO partners retain all IP rights to the newly developed molecules, ensuring exclusive benefits from their innovations.
Regulatory Flexibility	Biologics+ developed through BioHarvest's CDMO services have the potential for streamlined regulatory approval, suitable for both Biological and Botanical drug pathways.
Speed	BioHarvest’s process significantly reduces the time required for development, accelerating the path from concept to market.
Safety	The non-immunogenic properties of the molecules enhance their safety profile, making them suitable for a wide range of therapeutic and nutritional applications.
Extended Applications	Beyond pharmaceuticals, BioHarvest's CDMO services extend to developing food ingredients, nutraceuticals, and cosmetics, broadening the impact and application of their technology.

Exhibit 10: Key Advantages of BioHarvest Sciences' Botanical Synthesis CDMO Services. Source: Investor Presentation

BioHarvest Sciences' CDMO business model is structured around a three-step process, each with specific milestones and Non-Recurring Engineering Expenses (NRE):



Exhibit 11: Botanical Synthesis CDMO Development Stages. Source: Investor Presentation

1. **Predictor & Selector** (3 to 6 months): Involves producing a small biomass of the BIOLOGICS+ from the source plant. This initial phase requires an investment ranging from \$300k to \$400k from the customer.
2. **Corrector and Sampler** (6 to 9 months): Focuses on scaling up the biomass to support clinical trials and other tests, with NRE costs between \$600k and \$900k.
3. **Large Scale and Producer** (9 to 12 months): The final development phase, which scales the production up to large-scale manufacturing capabilities. This stage demands NRE investments of \$900k to \$1.2M.

The entire development process using the Botanical Synthesis Process is projected to take 15 to 24 months and cost the client between \$1.8M and \$2.5M in total Non-Recurring Engineering (NRE) expenses. Therefore, the first large-scale industrial production for a CDMO customer could potentially begin as early as Q3 2025. Upon successful completion, this can lead to a transition to a royalty-based model for ongoing production. This royalty model has significant potential due to its structure, where BioHarvest Sciences would receive a percentage of the high-growth revenues generated by successful products. As these products gain market traction and generate increasing sales, BioHarvest's revenue from royalties can grow substantially, aligning long-term company revenues with the success and market performance of the client's products. Additionally, CDMO customers utilizing BioHarvest's services may qualify for various tax grants and incentives. These financial benefits can significantly offset operational costs, enhancing the attractiveness and cost-effectiveness of BioHarvest's CDMO offerings.

The Botanical Synthesis CDMO Process takes 15-24 months and costs \$1.8M-\$2.5M in NRE expenses. Large-scale production could start by Q3 2025. Successful completion may lead to a royalty-based model, aligning BioHarvest's long-term revenues with product success

The launch of the CDMO unit was accompanied by the announcement of two significant contracts that emphasize the unit's potential and strategic importance. The first contract was signed with a NASDAQ-listed pharmaceutical company, which has engaged BioHarvest to develop specific complex molecules crucial for their patented drug development. This contract focuses on Step 1 of the Botanical Synthesis process, priced at the lower end of the previously mentioned range. The second contract involves a leading player in the food nutrition and ingredients industry, aimed at developing unique plant-based molecules for use in the multi-billion-dollar sweeteners industry.

Expanding BioHarvest Sciences' Manufacturing Capabilities with a New State-of-the-Art Facility

BioHarvest is strategically expanding its manufacturing and research capacity to meet growing demand and innovate further in the field of biotech manufacturing. The company currently produces its flagship product, VINIA[®], in a biological production facility located in Yavne, Israel. This facility is fully optimized for industrial production and boasts a capacity of 20 metric tons per year, which translates to an estimated production value of \$55 million annually. The corporate and R&D offices are situated in Rehovot, Israel.

In April 2024, BioHarvest announced significant expansions with the signing of two key agreements: a long-term lease for an additional 80,000-square-foot facility in Yavne, Israel, and an equipment purchase for 12 state-of-the-art GMP clean rooms. This new facility is designed to support the anticipated growth of the CDMO Business Unit and features industry-leading clean rooms, extensive laboratory space, and additional areas capable of supporting a new 50-ton manufacturing facility.

In April 2024, BioHarvest signed a lease for a new 80,000-square-foot facility in Yavne, Israel, and purchased equipment for 12 GMP clean rooms to support CDMO growth. This facility includes labs and space for a 50-ton manufacturing unit



Exhibit 12: Laboratory Spaces Inside New Yavne Corporate Campus. Source: Press Release

The installation of all equipment for the clean rooms is completed, providing immediate operational capabilities. The new BioHarvest Campus is set to become a hub for all R&D functions, with the Rehovot facility's research and development and corporate administrative offices relocating there within the next 2-3 quarters. By 2025, the campus will feature a new 50-ton manufacturing facility to accommodate increasing product demand and provide comprehensive botanical synthesis services to CDMO customers under one roof.

Moreover, BioHarvest is planning further expansion into the United States with a proposed 150-ton capacity facility, which will represent the third generation of the Botanical Synthesis manufacturing process. This U.S.-based facility is expected to incorporate advanced technologies

that enhance production yields and efficiencies, potentially setting a new standard in the industry for biotechnological manufacturing.

BioHarvest's Strategic Advantage in the Growing Global CDMO Market

The global Contract Development and Manufacturing Organization (CDMO) market has been experiencing significant growth, driven by the increasing outsourcing needs of pharmaceutical, nutraceutical, cosmeceuticals, and other healthcare companies. The global nutraceuticals CDMO market, valued at USD 37.3 billion in 2022, is projected to grow at a 7.7% CAGR from 2023 to 2030, while the global pharmaceutical contract manufacturing and research services market, valued at USD 226.6 billion in 2022, is expected to grow at a 7.10% CAGR over the same period.²³ This growth is fueled by healthcare companies outsourcing drug development and manufacturing processes to CDMOs to reduce costs, enhance efficiency, and leverage specialized expertise. The opportunity size in this market is vast, offering substantial potential for CDMOs that can provide high-quality, scalable, and cost-effective solutions for the development of complex and innovative therapeutics.

BioHarvest's entry into this market presents a substantial opportunity, especially given its unique capabilities in Botanical Synthesis. Leveraging its proprietary technology, BioHarvest can offer innovative solutions to pharmaceutical and nutraceutical companies, positioning itself to capture a significant share of this expanding market. The company's Botanical Synthesis Process Technology facilitates the development and production of patentable plant-based molecules, both small and complex, as well as unique compositions that incorporate both types. BioHarvest stands out with its ability to grow plant cells in bioreactors at an industrial scale, a capability not yet achieved by other companies in the field.

BioHarvest's Botanical Synthesis Process offers several industry advantages, including lower development and manufacturing costs, faster development speeds, and non-immunogenic properties that enhance safety. This scalability, combined with the patentable nature of its process and technology, positions BioHarvest to potentially capture an increasing share of the global CDMO market. The flexibility of this approach provides BioHarvest with the optionality to serve numerous CDMO markets, allowing the company to adapt to the diverse needs and opportunities within the pharmaceutical, cosmeceutical, nutraceutical, and nutrition industries.

The global CDMO market is growing rapidly due to increased outsourcing by healthcare companies. The nutraceuticals CDMO market, valued at \$37.3 billion in 2022, is projected to grow at a 7.7% CAGR from 2023 to 2030

² <https://www.grandviewresearch.com/industry-analysis/nutraceuticals-cdmo-market-report>

³ <https://www.grandviewresearch.com/industry-analysis/pharmaceutical-contract-manufacturing-market>

Appendix

Income Statement	FY2023 A	FY2024 A	FY2025 E	FY2026 E	FY2027 E
Net sales	12,672.0	25,188.0	40,714.1	79,424.7	114,617.4
Cost of sales	(7,039.0)	(11,246.0)	(17,178.2)	(28,251.8)	(32,453.4)
Gross profit	5,633.0	13,942.0	23,535.9	51,172.9	82,164.1
Operating expenses					
Research and development	(3,369.0)	(4,797.0)	(5,496.4)	(7,942.5)	(11,461.7)
Sales and marketing expenses	(7,748.0)	(11,733.0)	(16,285.7)	(30,181.4)	(40,116.1)
General and administrative expenses	(4,482.0)	(4,401.0)	(5,700.0)	(9,531.0)	(13,754.1)
Income from Operations	(9,966.0)	(6,989.0)	(3,946.1)	3,518.1	16,832.1
Finance expenses	(2,624.0)	(5,916.0)	(1,952.5)	(468.6)	(468.6)
Finance income	26.0	-	-	-	-
Profit before tax from continuing operations	(12,564.0)	(12,905.0)	(5,898.6)	3,049.5	16,363.5
Income tax (expense) benefit	-	(8.0)	(38.0)	(701.4)	(3,763.6)
Net earnings including noncontrolling interests	(12,564.0)	(12,913.0)	(5,936.6)	2,348.1	12,599.9

Exhibit 13: Income Statement Snapshot. Source: Diamond Equity Research

Risks Profile

- **Dependency on External Financing:** BioHarvest Sciences has consistently incurred operational losses since its inception, resulting in a significant accumulated deficit. With ongoing negative cash flows from operations and an inability to generate sufficient sales to fund its activities autonomously, the company relies heavily on raising capital from new and existing investors.
- **Susceptibility to Global Economic and Geopolitical Uncertainties:** BioHarvest Sciences' operations and financial stability are influenced by global economic conditions and geopolitical events. Issues such as economic recessions, market volatility, and international conflicts could hinder its ability to raise capital and disrupt supply chains or sales. Despite ongoing geopolitical tensions, such as the recent conflict in Israel, the company has managed to continue operations without significant impact but remains vigilant about potential future disruptions.
- **Key Personnel Dependency:** BioHarvest Sciences heavily relies on the expertise and contributions of its key personnel, including its executive team and board members. The absence of "key man" insurance policies for these individuals poses a significant risk. Any loss or unavailability of these crucial team members could disrupt operations and have a material adverse effect on the company's performance and stock value.
- **Competitive Landscape Risks:** BioHarvest Sciences faces the prospect of intense competition within its industry, where many rivals may possess greater financial resources and more extensive experience in manufacturing, marketing, and industry operations. Potential industry consolidation could further strengthen competitors by creating larger entities with broader geographic reach and enhanced economies of scale. To stay competitive, BioHarvest must continuously invest in research and development, marketing, sales, and client support.
- **Risk of Product Recalls:** BioHarvest Sciences, like any manufacturer and distributor, is susceptible to the risk of product recalls due to defects, contamination, harmful side effects, interactions with other substances, packaging safety issues, or inadequate labeling. A recall could impose substantial unexpected costs and legal challenges, diverting significant management attention. Additionally, such incidents could lead to considerable sales losses, potentially impacting the company's profit margins and overall financial condition if those sales cannot be effectively replaced.
- **Vulnerability to Supply Chain Disruptions:** BioHarvest Sciences' operations heavily depend on critical inputs such as raw materials, suppliers, and essential utilities like electricity and water. Any significant interruptions or adverse changes in the supply chain could severely impact the company's business operations and financial health. Challenges in securing these necessary supplies or negotiating favorable terms could also adversely affect the company's operational efficiency and profitability.

This list of risk factors is not comprehensive. For a full list, please refer to BioHarvest's latest prospectus and/or annual filings.

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