



ZERO GRAVITY SOLUTIONS

Company

Zero Gravity Solutions, Inc.
Boca Raton, Florida, USA
561.416.0400

Founded

2012

Industry

Agricultural Biotechnology

Websites

zerogsi.com
bam-fx.com
gardenerschoice.com

Zero Gravity Solutions (ZGSI) is a fully reporting next-generation agricultural biotechnology public company that is commercializing its proprietary technologies derived from and designed for Space with significant value and applications for agricultural markets on Earth.

BAM-FX® is a plant defense priming technology that activates a plant's innate immune system. This enhances nutrient availability and strengthens the plant's natural defenses to biotic and abiotic stress factors resulting in greater yield and quality.

BAM-FX is being rolled out by ZGSI's subsidiaries, **BAM Agricultural Solutions, Inc.** and **Specialty Agricultural Solutions, Inc.** into three commercial markets, **Commercial Agricultural Applications** (domestic and int'l), **Legal Cannabis and Hemp industries** and **Home and Garden Retail markets** (ready-to-use **Gardener's Choice®**).

Business Model

ZGSI's business revenue model is focused on product sales and licensing of its flagship product, **BAM-FX®**, to the world agricultural and specialty agricultural markets and through the development and introduction of a family of precision agricultural products based on the BAM-FX platform technology.

Capital Raised to Date

\$24M+

February 2013 - February 2015

8,896,594 shares sold at
\$.50/share

November 2015 - May 2016

5,008,000 shares sold and an
equal number of 5-year war-
rants at \$1.25/unit

August 2016 - May 2018

1,312,519 shares sold at
\$3.00/share

May 2019 - Present

\$4.7M - Series A and B Notes

Curative Response to Pathogens

- Citrus Greening
- Bacterial Blight
- Root Rot Disease
- Xylella Fastidiosa

Results

- Increased yield (up to 78%)
- Increased disease defense
- Increased pest tolerance
- Improved overall crop quality

Disease and Pest Defense and Recovery

- **Defense:** BAM-FX activates the plant's natural defense genes, which suppresses disease development (bacterial, viral and fungal).
- **Recovery:** Infected plants show curative responses and the establishment of new growth (leaves and fruiting buds).

Other Benefits

- Greater biomass
- Less culls (unmarketable product)
- Earlier flowering
- Significantly increased fruit weight
- Higher levels of chlorophyll
- Increased BRIX (sugar) content

Investment Highlights

- Initial market acceptance and growing brand recognition of company's BAM-FX commercial and Gardener's Choice retail products
- Substantial domestic and international pipeline in place
- Manufacturing facility in place and producing BAM-FX
- Established sales & distribution infrastructure
- Multiple domestic and international distribution agreements in place
- A robust intellectual property estate
- Close working relationship with NASA Ames Research Center, USDA Agriculture Research Services labs, Iowa State University, North Carolina State University, University of Florida/IFAS/TREC, and other recognized agricultural industry leaders and academic institutions
- Multi-year and multinational field trials and validations completed on a wide variety of crops

Curative Response — Disease and Pest Defense Activated

- Activates the plant's natural defense genes, which suppresses disease development (bacterial, viral and fungal) and the effects of insect infestation.
- Infected plants/crops show curative responses and the establishment of new growth (leaves and fruiting buds).

Grower Experience Studies



Orange—Citrus Greening

- Eradication of unwanted growths, such as lichens, moss, and fungus.
- Tree sheds affected leaves.
- Fresh growth, larger and greener leaves, and flowers in multiple new sites 45 days
- Virtual extinction of the disease after BAM-FX treatment



Pomegranate—Bacterial Blight

- Pomegranate is often subject to the disease Bacterial Blight, causing up to 90% yield reduction.
- Currently there is no known treatment for Bacterial Blight.
- BAM-FX was sprayed on 15 of 550 trees, all of which were infected.
- Results of treated trees after 3 weeks:
 - Bacteria free
 - Greener Leaves
 - Increased fruit size

Consistent Performance

- Multi-season/year tested on over 30 crops since 2014 across a broad range of climates and conditions in multiple locations: USA, Chile, Mexico, Brazil, India, China and the International Space Station
- Consistently demonstrated the superior yields at harvest due to enhanced rooting, increased plant growth and better fruit development
- Nutrient Absorption System: BAM-FX changes the physiology of a plant to substantially increase the absorption and assimilation of minerals and micronutrients.
- Robust vigor, biomass and root system

Sampling of Yield Increases and Results

Cannabis	44.75% (dry flower weight)
Hemp	25% (dry flower weight), 48% CBD content
Strawberry	21.3% (crates/acre), 5% increase in avg BRIX
Table Grape	25% (weight), BRIX also increased 25%
Tobacco	50% (dry weight vs control)
Tomato	48% (weight)
Marigold	21.7% (height), 9.8% (flower count), 23.7% (diameter)
Wine Grape	33.95% (weight), 40 acre test



Avocado

- 57% fruit weight increase
- Lab confirmed increased Zinc and Nitrogen level, reduced Chloride and improved Phosphorus to Zinc ratio



Wine Grapes

- 33% fruit weight increase
- Tested Zinfandel and Carignan varieties
- BRIX (sugar) 4% increase vs. control

Senior Leadership

HARVEY KAYE

Co-Founder & Chairman

Mr. Kaye has more than 40 years of experience in providing financing, strategic planning and operational leadership to large and small companies, both public and private, as an entrepreneur, investment banker, chairman, chief executive officer and director.

Mr. Kaye was formerly founder, chairman, president and CEO of Latitude Solutions, Inc. which provides products, processes and services for contaminated water.

He was previously CEO and President of Gulfstream Capital, L.C., a merchant banking, consulting and financial advisory organization that provides advisory and corporate finance services to both public and private companies. Gulfstream has acted in a merchant banking, financial advisory and strategic planning capacity for numerous corporations.

TIMOTHY A. PEACH

CEO & CFO

Timothy A. Peach has over 20 years of finance and operations experience working with both public and private companies from development stage through significant revenue generation. His track record includes successful IPO and bond offerings, mergers, acquisitions, integration and profit improvement.

He served as the CFO, Vice President and Executive Vice President from 2008 to 2014 of Oncure Medical Corp., a private equity backed company, which managed multistate radiation oncology clinics. Mr. Peach began his career with Price Waterhouse Coopers with a broad diversity of clients, which ultimately led to his involvement in a multitude of fields including medical manufacturing, software engineering and integration, telecommunications, natural resources and innovative technology.

He received a Bachelor's of Science degree and an MBA from the University of Pittsburgh and is a member of the American Institute of CPA's, Financial Executives International and is a Chartered Global Management Accountant.

RAVEENDRAN POTTATHIL, Ph.D.

CTO

Dr. Pottathil is an accomplished scientist with a 40-year history spanning academia, industry, invention, and company creation.

In 1996, Dr. Pottathil created Accudx as a diagnostic assay manufacturer. This company has progressed into consulting, technology and product development, and intellectual property services in biotech, medtech, and ecotech. His experience in academia and industry has covered various aspects of biochemistry, molecular biology, mammalian genetics, medical virology, tumor biology, and diagnostics, in both academic and industrial settings. As Chief Process Scientist at PetroAlgae, he was responsible for the development and scale up processes for growth, harvesting and processing of micro-algae. As a founding member and Director at Specialty Laboratories International, he successfully set up a large number of esoteric Clinical Reference Laboratories in Mexico, Singapore, Malaysia, and India. He has a number of issued patents.

Dr. Pottathil is a graduate of Tata Cancer Institute in Mumbai, India. He completed his post-doctoral fellowships at The Jackson Lab, Bar Harbor, ME and Duke University, NC. He worked as a Senior Manager at Hoffman La-Roche and was instrumental in their diagnostics program. He is currently a visiting professor at Florida Intl. University, Miami.

Key Directors and Senior Advisors

- **MICHAEL T. SMITH, Director, Principal Investor**

Mr. Smith is the retired Chairman of the Board and Chief Executive Officer of Hughes Electronics Corporation, (now known as Hughes). After spending nearly 20 years with General Motors in a variety of financial management positions, Mr. Smith joined Hughes in 1985, the year the company was formed, as Senior Vice President and Chief Financial Officer. He is currently a Director, Chair of the Nominating and Governance Committee and Audit Committee member of Teledyne Technologies Incorporated and WABCO Holdings, Inc. and is also a director of FLIR Systems, Inc.

- **SOUMYO SARKAR, Director**

Mr. Sarkar has served as Chief Executive Officer and Portfolio Manager of Sumit Capital LLC, an independent institutionally-orientated investment advisory firm since its founding in 2010. Sumit Capital is a New York based registered investment advisor. Prior to founding Sumit Capital, Mr. Sarkar was a Managing Director with Deutsche Bank and the Founder and Head of the Deutsche Bank Matched Book Arbitrage Group. He ran the Deutsche Bank Matched Book Arbitrage Group from 1995-2009. Prior to joining Deutsche Bank, Mr. Sarkar ran a similar strategy within Credit Suisse proprietary trading group from 1991-1995. Prior to Credit Suisse, Mr. Sarkar held various research and programming roles for over five years with Solomon Brothers, Merrill Lynch and Lehman Brothers.

- **ALEXANDER M. BOIES, Director**

Mr. Boies is currently employed as an associate at the Boies, Schiller & Flexner LLP Law Firm in New York, NY where he works with a wide range of clients on complex litigation matters. He was part of the legal team that won a \$663M judgment against a guardrail maker in a Qui Tam trial.

- **PEDRO LICHTINGER, Investor, Proposed Board Member, Exclusive Licensee (Mexico & Peru)**

Former President of Pfizer Inc.'s Global Animal Health Business and Global President of Primary Care, Pfizer Inc. Mr. Lichtinger is industry executive with a 37-year career in biotechnology and Animal Health with a proven track record of developing turnaround and financing strategies, executing strategic alliances, and building commercial and R&D capabilities. He has a background in pharmaceuticals with 31 years' of Pharma experience at Smith Kline Beecham and at Pfizer Inc as President of Global Primary Care, President of Europe, and President of Animal Health. Mr. Lichtinger is the former President and CEO of Asterias Biotherapeutics and Optimer. He is the current Chairman and CEO of Starton Therapeutics, a Biotechnology platform company focusing on transdermal delivery. He holds an MBA degree from the Wharton School of Business and an engineering degree from the National University of Mexico.

- **ROBERT S. WALKER, Legislative and Regulatory Advisor**

Congressman Robert Walker represented Pennsylvania in the United States House of Representatives as a Republican from 1977 until his retirement in 1997. He has served as a longtime advisor to presidents from Reagan to Trump, policymakers, and industry members on space exploration and is former Chairman of the House Committee on Science, Space and Technology. During his 20 year service on that committee he championed policies to expand commercial space activities. He was the first sitting Congressman awarded NASA's highest honor, the Distinguished Service Medal. Later, he was also awarded the NASA Distinguished Public Service Medal.

- **RIK MILLER, Senior Agricultural Advisor**

From 1984 to 2015, Rik Miller worked for the DuPont Company where he held numerous successive senior leadership and management roles in sales and marketing in DuPont's agricultural chemicals business. From 2005 to 2015, Mr. Miller was Global Business Director, Global Marketing Director, Regional Director – Europe, Middle East, and Africa, and President, respectively for DuPont Crop Protection. He also served as an Operating Team member and Corporate Officer of E.I. DuPont de Nemours and Company. He served on CropLife™ International's Strategy Council and under appointment to the USDA Secretary of Agriculture's Agricultural Policy Advisory Committee. He also currently serves on the Board of Directors of Cool Planet Energy Systems, and Douglas Products.

- **KEVIN MCGOVERN, Senior Advisor**

Mr. McGovern is the Chairman/CEO of McGovern Capital (MGC). Through MGC and its affiliates, he has co-founded over 25 companies, 6 of which have become world/category leaders, and he has been lead negotiator/principal in 15 global JVs. Mr. McGovern teaches global innovation at Cornell and Stanford Business Schools and has taught at MIT, Harvard, NTU Singapore, and KAUST in Saudi Arabia. He is Trustee Emeritus of Cornell University, serves on many public and private boards including the Board of the Smithsonian, and is a senior advisor to Consumer Reports.

Principal Investor

DAVID BOIES

Mr. Boies is Chairman and a Managing Partner of Boies Schiller Flexner LLP since its founding in 1997. Mr. Boies has been selected as one of the 100 Most Influential People in the World by Time Magazine (2010). He has been named Global International Litigator of the Year by Who's Who Legal an unprecedented seven times. Mr. Boies has been named the Litigator of the Year by The American Lawyer; the Lawyer of the Year by The National Law Journal (twice); the Antitrust Lawyer of the Year by the New York Bar Association; Best Lawyers in America from 1987-2019; Lawdragon 500 Leading Lawyers; and a Star Individual by Chambers USA. He was named one of the Top 50 Big Law Innovators of the Last 50 Years by The American Lawyer in 2013.

Domestic Revenue Opportunities and Strategic Relationships

Multiple distributor and direct farm relationships — Pipeline: \$3.5M+

- **KARA BREWER BOYD, Co-founder and President, American Indian Farmers Association**
Program Coordinator, National Black Farmers Association
BAM-FX Product Spokesperson, Business Development
Mrs. Boyd, along with her husband, John W. Boyd, own and operate Boyd Farms located in Baskerville, Mecklenburg County, Virginia and are co-founders of the National Black Farmer's Association. Mrs. Boyd is Founder and President of the Association of American Indian Farmers.
- **DR. JOHN W. BOYD, JR. Co-founder and President, National Black Farmers Association**
BAM-FX Product Spokesperson, Business Development
Dr. Boyd owns and operates Boyd Farms and is Founder of the National Black Farmers Association. He is a long-time civil rights activist and advocate for farmers across the country. Dr. Boyd was instrumental in securing the biggest Congressional victory in history for black farmers in the farm bill that effectively reopened the government's discrimination settlement with black farmers.
- **TOMAS AGUAYO, CCA, President Great Crops Ag & Consulting**
BAM-FX Principal Agronomist
Tomas Aguayo is an Agricultural Engineer and Certified Crop Advisor. Mr. Aguayo has over 18 years' experience in agriculture in Chile, the United States, and Mexico. As the former R&D Manager for Driscolls Farms with extensive knowledge in soil nutrition/chemistry and plant physiology, Mr. Aguayo is dedicated to helping the agricultural industry make best use of fertilizers, irrigation and pesticides and through the use of new technology in reducing the variability that nature brings to agriculture.
- **FRANK DIBELLO, President & CEO of Space Florida**
Liaison to Florida Department of Agriculture Citrus Greening Mitigation Trials/NASA
Working in conjunction with NASA's Kennedy Space Center and the United States Air Force, Space Florida is the principal state agency for aerospace-related economic development, and the Space Authority for the State of Florida. In his position at Space Florida, Mr. DiBello develops and executes programs designed to attract, retain and grow aerospace business across the state of Florida.
- **DR. LORI UNRUH SNYDER, Associate Professor, Global Engagement Research, NC State**
BAM-FX Technical Spokesperson and Agricultural Subject Matter Expert, Liaison to Academia and Domestic and International Coffee Growers and other agricultural industries
Dr. Unruh Snyder has extensive international experience encompassing working with the business sectors with corporate social responsibility, workforce development, project management, public engagement, and grant services. She is skilled in strategic planning, innovation, institutional funding and sustainability in agriculture.
- **ROHAN MARLEY, BAM-FX Brand Ambassador, Co-Founder Marley Coffee**
BAM-FX Brand Ambassador and liaison to entertainment and sports celebrity influencers
Son of Bob Marley. As brand ambassador, Mr. Marley is integral to our social media marketing and business development efforts to introduce the advantages and use of BAM-FX to broad areas of our agricultural markets in which he is directly involved, has contacts or influence as a farm owner committed to sustainable farming practices.

Domestic Revenue Opportunities and Strategic Relationships, cont'd.

- **NATIONAL BLACK FARMERS ASSOCIATION (NBFA)**

Customer, Distributor , Product Endorsement, Substantial Domestic Pipeline, principally in Hemp Market

Endorsement received from 100,000+ member organization. Finalizing a Master Distributor relationship. NBFA has issued a purchase order of \$1.2 million for the purchase of BAM-FX for their Regenerating Our Farmers initiative.

- **ASSOCIATION OF AMERICAN INDIAN FARMERS**

Customer, Distributor , Product Endorsement, Substantial Domestic Pipeline, principally in Hemp Market

Founded by Kara Boyd, an enrolled member of the Lumbee Tribe of North Carolina, the NAAIF is a national organization that provides outreach, advocacy and technical assistance across Indian Country.

International (Sales)

- **INDIA**

Distributor: Nurture Earth

First order received 2019; import clearance expected 2020. Completed multi-year validations on various crops including cotton, grape, pomegranate, pigeon pea, pepper, tomato, okra, orchid and marigold, with excellent results. Servicing a network of more than 300 sub-distributors (retailers) associated with Ajeet Seeds. (3,000 distributors and 30,000 plus contract farmers) Planning validations in additional crops such as tea, coffee and the Organic Agriculture segment.

- **CHINA**

Obtained registration in 2018 from Shanghai Agricultural Institute. Third year validation is in progress. Licensing and distribution discussions are in progress.

- **PHILIPPINES**

Distributor: Sara Ventures

Obtained import license for field studies in 2018, multicenter field studies in progress. Permanent commercial license expected early Q3 2020. Potential order ~\$400,000 expected Q3 2020.

- **BRAZIL**

Distributor: Dallgree Comercio de Productos Agricola

Distribution agreement executed November 2019. Government approval for import and sale completed. Successful multi-year, multi-crop trials completed. 1,000 gallon initial distributor stocking order shipped March 2020. Additional purchase orders expected Q3 and Q4 2020.

- **MEXICO**

Distributor: Agro Space Tech SA

Avocado yield increases in trials ranged between 27-78% depending on location and age of tree. Seven trials being conducted simultaneously, with final results validated Q1 2020. Initial order commitments received; shipment delayed due to Corona Virus. Orders expected upon completion of trials and registration (Q3 2020).

- **PERU**

Distributor: Agro Space Tech SA

Immediate product import – no additional registration requirements. 20% retained interest in new distribution company. Commercial introduction for avocado and berry expected Q3 2020.

- **JAMAICA**

Distributor: Isratech Jamaica LTD – Agreement in Process

Obtained import license for resale valid through 2021. Wide multi-Caribbean country reach. Planned initial order approximately \$50,000 BAM-FX and Gardener's Choice. Smilin' Island brand banana and coffee trials sponsored by Marley Coffee commencing end of June.

BAM-FX Product Testimonials

- Mexico is a large and rapidly growing agricultural exports country. It is a top five exporter in avocados, berries, tomatoes and many other cultures. Mexico produces 36% of global avocado production and climate and water abundance allow it to produce throughout the year.

For the last two years Agro Space Tech de Mexico has tested BAM-FX under Mexican climate and soil conditions and have validated BAM-FX's efficacy and ability to increase crop productivity in our country. The product has outperformed expectations and we expect it to be a major success. We have observed productivity increases ranging from 16% up to 78% in avocado crops. We have tested BAM-FX in avocados, berries, Persian lime and flowers. Next we will be testing the product for disease mitigation in crops. It is a true privilege to be associated with Zero Gravity and look forward to jointly having a major impact on Agricultural markets.

Pedro Lichtinger

**Former President of Pfizer Inc.'s Global Animal Health Business and Global President of Primary Care, Pfizer Inc.
Investor, Proposed Board Member, BAM-FX Exclusive Licensee (Mexico & Peru)**

- I was impressed with the consistency of crop performance enhancement over multiple-year trials and also the variety of crops on which the product has been tested. The agricultural industry is looking for innovative ways to enhance sustainable productivity while increasing return on investment. Utilizing the science of the BAM-FX technology platform may represent an effective and efficient approach toward accomplishing that goal.

Rik Miller

**Former President, DuPont Crop Protection
Strategic Advisor to BAM-FX**

- I have used BAM-FX on multiple crops for both farm and greenhouse production. I believe the product is very beneficial as a precision agricultural product for efficiently supplying highly bio-available forms of micronutrients Nitrogen to crop plants. BAM-FX's formula has multiple growth promoting effects and markedly enhances both crop yields and the nutritional quality of crop plants.

John L. Freeman, PhD

Plant Biochemist, Molecular Biologist, Food Chemist

Director of Scientific Affairs & Principal Investigator Intrinsyx Technologies Corporation, NASA Ames Research Park

- Recognizing the economic trend in agriculture, we are encouraging our members to consider the economic benefits of transitioning from commodity and trade sensitive crops to high ROI crops, such as hemp. BAM-FX is bringing the best technology and growing knowledge to the new, exciting hemp market. We believe in the approach that BAM-FX technology utilizes to produce powerful plants with the ability to employ natural immune defenses.

Dr. John W. Boyd, Jr.

President of the National Black Farmers Association (109,000 members)

- The use of BAM-FX at my home in Pennsylvania has produced spectacular results. Plants that appeared to be close to dead have been revived and the only thing used to revive them was the application of BAM-FX. I had an evergreen that was down to one stem with a few needles on it and a holly bush that had only two leaves left on it and was dead for all intents and purposes — both are flourishing now! By no means a scientific study, but I will tell anyone and everyone that if you have diseased or dying plants that you want to save, you need to try BAM-FX.

Robert Walker

Former Congressman (R-PA)

ZGSI Independent Board Member