BIOSOIL
ENHANCERS

products available OMRI LISTED For Organic Use

SUMAGROW inside

POPULAR SCIENCE GRAND AWARD WINNER 2011 GREEN TECHNOLOGY

» together we can make a difference

SUMAGROW

About *SumaGrow®*

SumaGrow® is a blend of multi-functional native soil microbes selected for their abilities to improve crop performance on multiple levels. Products containing ***SumaGrow®*** have one of the highest microbial concentrations on the market, are all natural, organically-based, and contain no genetically-modified organisms. ***SumaGrow®***'s award-winning formulations have demonstrated the ability to increase crop yields while reducing fertilizer inputs. Overwhelmingly, the results have demonstrated how the technology of ***SumaGrow®*** benefits the producer, the plant, the soil, and the environment.

www.sumagrow.com **877-888-2744**

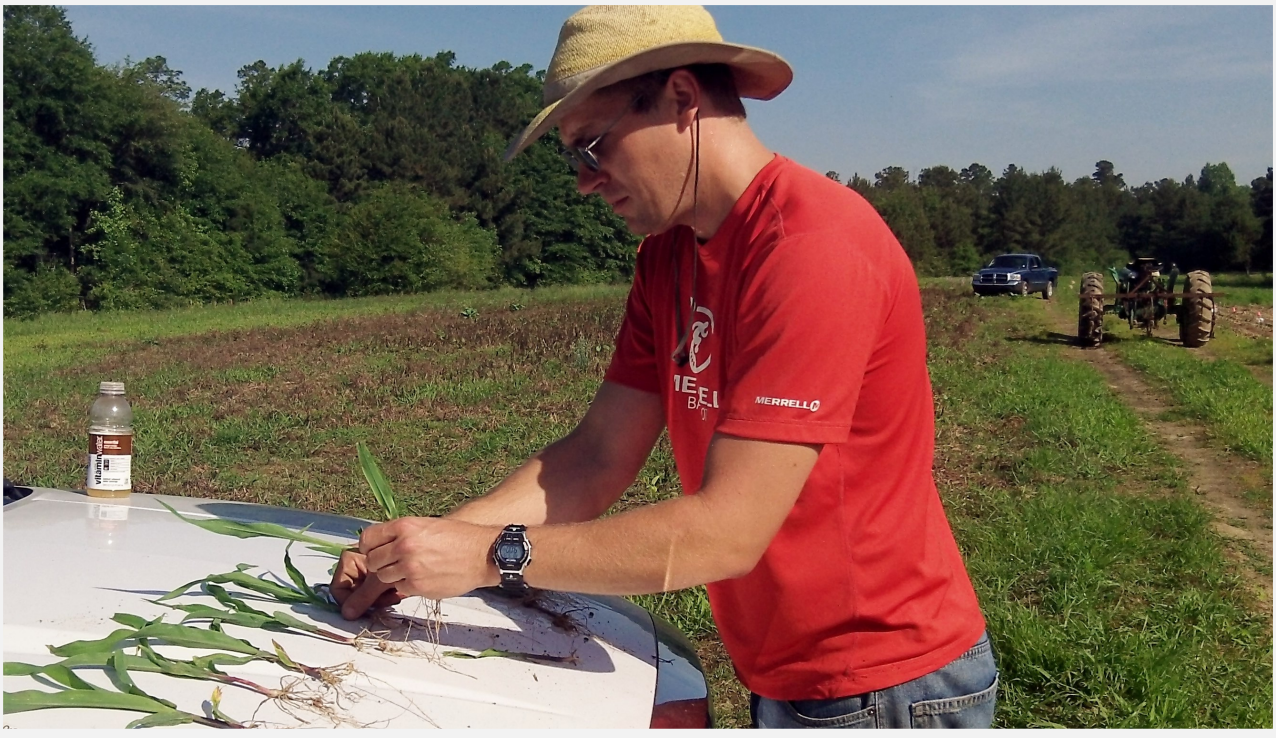
The SumaGrow® Solution

Planet Earth is facing many challenges when it comes to agriculture and the world's food supply. The world needs more food and more nutritious food, grown without total reliance on unsustainable inputs, at a reasonable cost, supporting our producers without further damaging the environment.

Bio Soil Enhancers, Inc. (BSEI), the manufacturer of products containing SumaGrow® , believes significant improvements – higher yield, dramatically reduced inputs and alleviation of environmental damage – can be made to existing farms and farming methods with the use of its award winning products containing ***SumaGrow®***. BSEI products containing ***SumaGrow®*** can increase crop yields, reduce or eliminate fertilizer, and enable crops to grow with reduced water and agricultural inputs. ***SumaGrow®*** products have been successfully utilized throughout the United States and in over 40 countries around the world.

Meet Our Team

BSEI has built a team of scientists and agronomists who share the common mission to ensure that products containing SumaGrow® continue to meet the needs of agricultural producers to grow higher yielding, healthier crops while reducing the dependence on chemical fertilizers. BSEI allocates significant resources to the continued advancement of our technology through research and development, strict quality control management and data collection protocols, and sustained technology upgrades and improvements. The following pages highlights our technical team and their commitment to producing products that leave a legacy of good stewardship that provides for our generation and the generations that follow.



Lalithakumari Janarthanam, Ph.D.

Dr. Lalithakumari Janarthanam is a renowned scientist specialized in agricultural microbiology and plant pathology. She made new ventures in the field of bio-control by introducing *Pseudomonas chlororaphis* and *Trichoderma sp*. for the control of a broad spectrum of plant pathogens. Her book *Fungal Protoplasts: A Bio Technological Tool* was reviewed as an excellent research guide for scientists who work on strain improvement of industrially important fungi and bacteria and has been published in several languages. Dr. Lalithakumari has consistently demonstrated initiative and skill in applied research, and her academic success and scholarly output have earned the respect of her peers and elevation to esteemed positions in the University of Madras and national government agencies in India. She has an impressive research record with outstanding accomplishments and has had many research projects from various funding agencies.

Dr. Lalithakumari earned her Bachelor of Science in Agriculture and Master of Science in Microbiology and Plant Pathology from Tamil Nadu Agricultural University (TNAU) in Coimbatore, one of the three oldest agricultural schools in India. She received her Doctorate from the University de Catholique, Belgium, in Physiological Plant Pathology, an extremely In 2007, Dr. Lalithakumari joined as visiting scientist in the

Department of Microbiology at Michigan State University where she worked with Professor C. Adinarayana Reddy on the Bio Soil Enhancers, Inc. microbial research project. She focused on the development of efficient polymicrobial formulations for enhancing plant growth and productivity. The goal was to develop a formulation that contained multiple microbial species that would enhance growth and productivity of a broad spectrum of plants: legumes and non-legumes, vegetables, cereals, fodder crops, ornamentals, grasses and oil seeds. The formulations were designed so that the microbes were expected to provide the observed beneficial effect through multiple mechanisms including enhancement of nitrogen fixation, production of growth stimulants, improvement of soil health, and mobilization of minerals such as phosphate, potash, and other nutrients. In 2009, Dr. Lalithakumari joined BSEI as the Director and Head of Research and Development. Since then, she has contributed tremendous breakthroughs to the development of SumaGrow® and various other crop specific products and continues to make considerable progress in developing technology for mass production, promotion, and the further improvement of SumaGrow® products.

Christopher Flood, Ph.D.

Dr. Flood received his Associate in Science from Copiah-Lincoln Community College in Natchex, Mississippi in 2004. He continued his studies at the University of Southern Mississippi where he was awarded a Bachelor of Science in Biology, with emphasis in environmental biology, in 2007. Dr. Flood then opted to seek his terminal degree in Molecular/Environmental Microbology and was conferred his Doctorate in 2013.

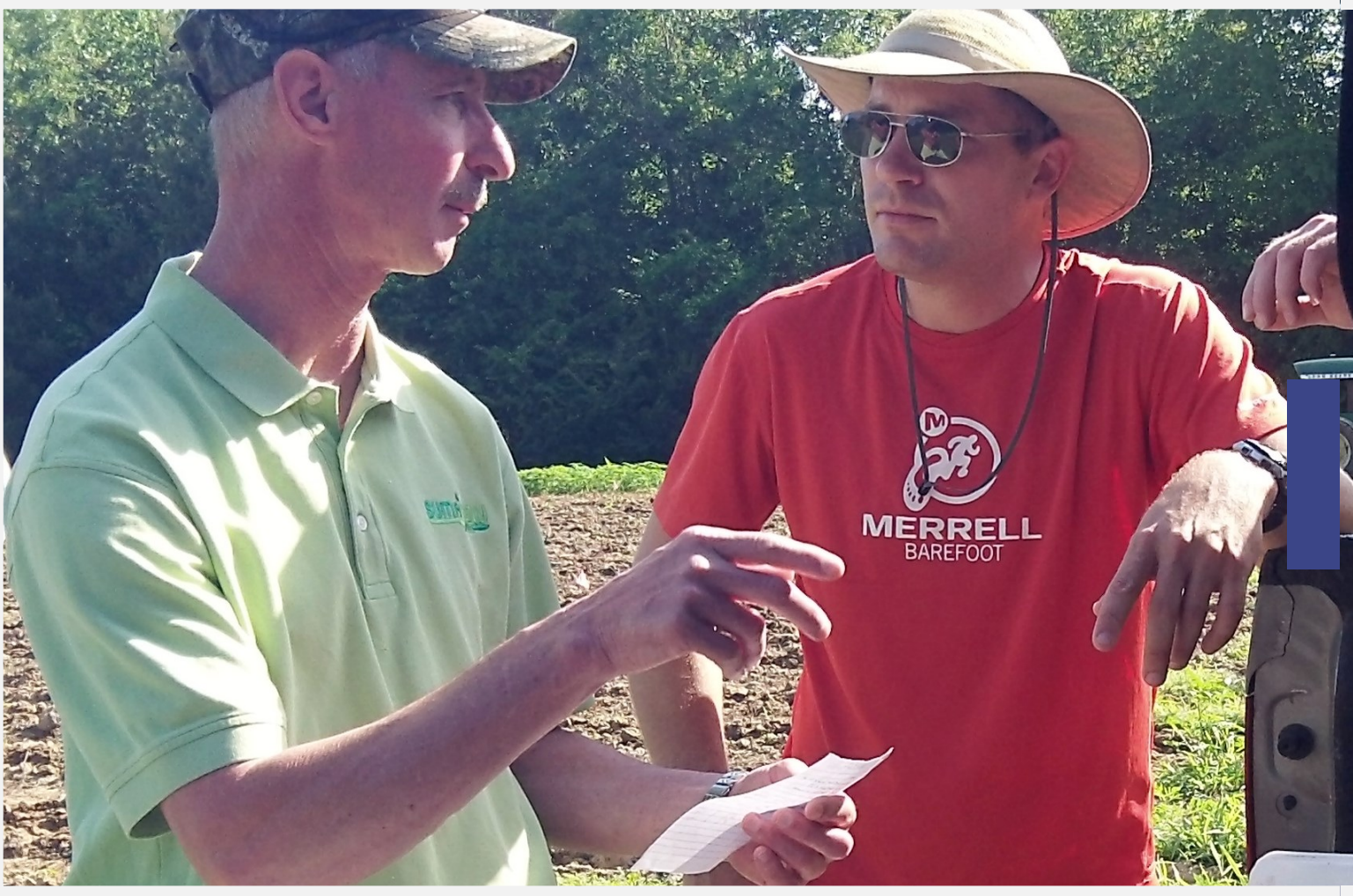
Dr. Flood Has served as a graduate and undergraduate research assistant as well as a laboratory manager for USM's Department of Biological Sciences. He has a strong interest in the relationship of microbiology and how it relates to human health.

Dr. Flood currently assists with research and development, production, and field trials for BSEI.

Chuck Grantham

Charles Grantham grew up on a small diversified farm where his family raised beef cattle, swine, poultry, and corn. His background and continued interest in agriculture led to a career as a county extension agent. Mr. Grantham attended Jones Junior College and Mississippi State University where he received a Bachelor of Science in agriculture and extension education and a Master's in agriculture education. He taught agriculture for five years and served as a County Extension Agent for twenty-five years with Mississippi State University Extension Service. As County Extension Director, he provided leadership and coordination for the county extension educational effort, including the development of 4-H youth programs.

Mr. Grantham has received several certifications including ISA Board Certified Arborist, Beef Quality Assurance Certification, Master Tree Farmer, and Master Urban Forester. He has also received several state program awards and national recognitions including National Association of County Agricultural Agents (NACAA) Achievement Award, the NACAA Search for Excellence Award, and Outstanding County Extension Director. Mr. Grantham first became involved with BSEI when he was invited to discuss soil sampling and reporting at a training seminar. He was given a small product sample to use on his tomatoes and after tasting the SumaGrown fruit, he became more interested in BSEI and SumaGrow® . He is BSEI's Executive Vice President uses his extensive knowledge and experience to provide technical support to farmers and licensees.



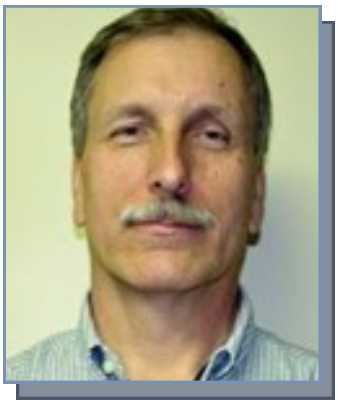
Janiece Rawalt

Janiece Rawalt received her Bachelor of Science degree in Biology with an emphasis in Environmental Science from the University of Southern Mississippi and is currently pursuing a Master of Science degree in Microbiology.

Ms. Rawalt has worked extensively with wastewater testing and treatment. Her previous positions include laboratory technician doing wastewater compliance testing, laboratory director overseeing all wastewater process and compliance testing, and testing freshwater streams for the Adopt-A-Stream program. In 2000, she took a position at Bonner Analytical Testing Company where she expanded her laboratory testing experience and participated in several special projects including air quality testing, writing standard laboratory procedures, and EPA superfund site testing.

Ms. Janiece Rawalt worked for Bio-Solutions Corporation, a microbial bioremediation company, from 2004 until 2007. In 2007, she joined BSEI's research and development team where she helped oversee the SumaGrow® double blind field trials. She currently is in charge of Quality Control and works with production for BSEI.

Glen Shearer, Ph.D.



Glen Shearer has a varied academic education and research experiences. He received his Bachelor of Science in Biology from Murray State University, graduating Magna Cum Laude. He continued his education in Oklahoma receiving his Master of Science in Microbiology from the University of Oklahoma. He rounded out his degrees receiving his Doctorate in Microbiology from the University of Oklahoma. Furthering his educational endeavors, Dr. Shearer completed a Natural Institutes of Health Research Fellowship in Infectious Diseases at Washington University School of Medicine and then as Researcher I and Lecturer at the University of California Medical School in Irvine. Dr. Shearer has received numerous awards over the course of his academic and research career. He was most recently awarded the Mississippi Academy of Sciences Distinguished Contributions to Science Award in 2011. He is also a member of several professional Mycology and Microbiology associations, has presented at many meetings and conferences, and has been published in numerous scientific publications. Dr. Shearer joined the faculty at the University of Southern Mississippi's Department of Biological Sciences in 1988. From 2010 until 2013 he was the Chair of the department. Dr. Shearer, in addition to his faculty position, also serves as an outside consultant in black mold (residential and industrial), occular histoplasmosis, control of bacteria in process feed water, and fungal respiratory infections. Dr. Shearer became a consultant to BSEI in 2013 assisting us with several research and development projects and he continues to be an invaluable asset to the company.

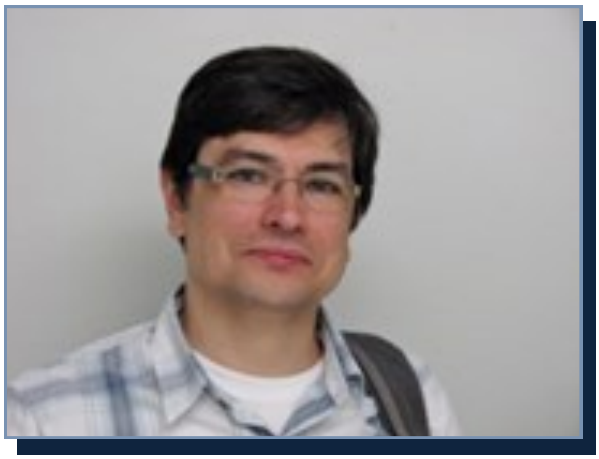
Jerrid Boyette

Jerrid Boyette received his Bachelor of Science in Biology from the University of Southern Mississippi with highest honors in 2011. He is working on completing the requirements for his Master of Science in Biology from USM with a completion date of summer 2014. Prior to his tenure at USM, Mr. Boyette received his Associate of Arts in Nursing in 2004 and worked as a Licensed Practical Nurse from 2004-2010.

Mr. Boyette has taught courses on anatomy and physiology and worked at the Lake Thoreau Environmental Center at USM. As a research assistant, he has conducted studies on the effects of the Deepwater Horizon oil spill on Mississippi's coastal marshes, on the role of fungi in plant decomposition, and on the effects of prescribed burns on soil respiration.

Mr. Boyette currently works for BSEI in Production and Quality Control.

Dmitri Mavrodi, Ph.D.



Dr. Dmitri Mavrodi received his Master of Science in Microbiology from Kuban State University in Kasnodar, Russia, and his Ph.D. in Molecular Biology from the Russian Academy of Sciences at the Engelhardt Institute of Molecular Biology, Moscow, Russia.

He has received awards for his research, most recently the Dynasty Foundation Travel Award to present a series of seminars at the Puschino Scientific Research Center of Russian Academy of Sciences and Perm State University in Russia.

His research interests lie in the ecology, diversity, and genomics of plant growth promoting rhizobacteria. He's also researching the molecular mechanisms of plant-microbe interactions, genetics and enzymology of antibiotic production, mechanisms of gene regulation and expression in bacteria, and the biological control of soil borne plant pathogens.

Dr. Mavrodi and his wife are currently working as consultants for BSEI conducting research into mobility of microbes in SumaGrow® products in the soil.

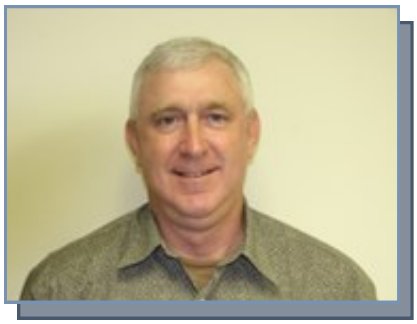
Olga Mavrodi, Ph.D.

Dr. Olga Mavrodi received her Bachelor of Arts in Botany from Kuban State University in Russia, and her Master of Science in Biology with emphasis in Environmental Biotechnology from the Institute of Biochemistry and Physiology of Microorganisms at the Russian Academy of Sciences in Puschino, Russia. Dr. Mavrodi moved to the United States and completed her Ph.D. in Plant Pathology at Washington State University.

During her academic education, Dr. Mavrodi received several honors including the Harriet B. Rigas Award from the WSU Association for Faculty Women in 2004. She is a member of several professional associations including The American Phytopathology Society and the American Society for Microbiology. Dr. Mavrodi is researching plant growth promoting rhizobacteria, rhizosphere microbiology and ecology, diversity of 2,4-DAPG producing bacteria, microbial genomics, colonization traits in rhizobacteria, and quantification of rhizobacteria with real-time PCR and has been published in numerous scientific journals.

Along with her husband, Dr. Mavrodi is currently working as a consultant for BSEI conducting research into mobility of microbes in SumaGrow® products in the soil.

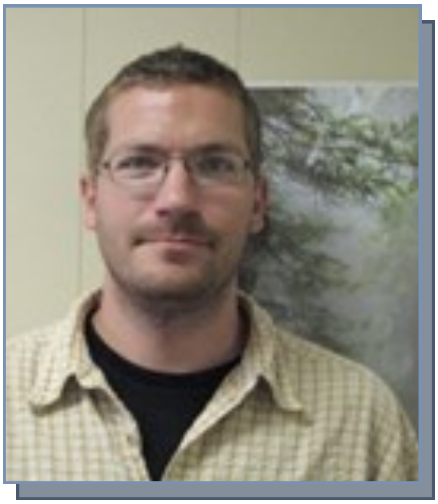
Billy Joe Lee



Billy Joe Lee grew up on a 350 acre farm in Poplarville, Mississippi. During his childhood he developed a love of agriculture and wanted to be a County Agent so he could help others be successful in agricultural production. To help achieve this dream, Mr. Lee attended Pearl River Community College earning an Associate of Arts, then continued his education at Mississippi State University earning a Bachelor of Science in Agriculture and Extension Education.

Mr. Lee began his career with a Vocational Teaching position in Carriere, Mississippi remaining there for 17 years. During his time in Carriere, he pursued a graduate degree and joined the Mississippi National Guard. Just as his 18th year of teaching began, he was transferred to Active Duty during Desert Storm and Desert Shield. He has since served 30 years with the National Guard, 7 as Active Duty, and 23 years inactive. Mr. Lee joined BSEI's technical team in 2014 assisting with field trials, interpretation of soil analyses, analysis of trial data, and assisting customers, licensees, and distributors with application and technical questions.

Knox Flowers



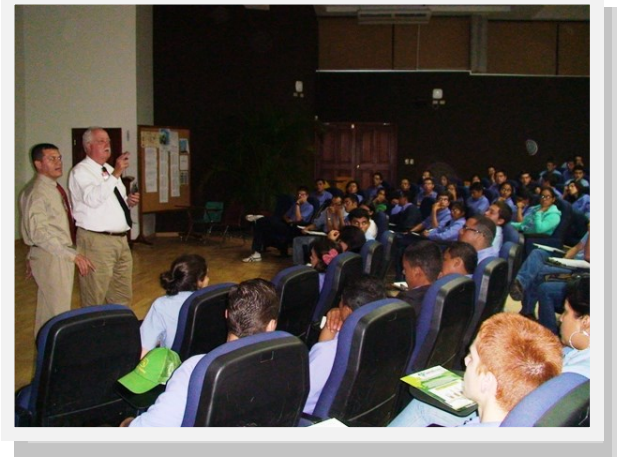
Knox Flowers received his Bachelor of Science degree in Environmental Biology, with emphasis in ecology, from the University of Southern Mississippi in 2010. He is currently completing his work on a Master of Science in Environmental Biology, also at USM, with emphasis in plant ecology.

Over the last several years, Mr. Flowers has worked with faculty advisors at the University of Southern Mississippi to quantify the impacts of the BP Deepwater Horizon oil spill on marsh carbon cycling processes along the MS Gulf coast, as well as the effects of prescribed burning on soil CO_2 flux rates at USM's Longleaf Pine Preserve.

He combined similar methods to those used at the Mississippi sites to assess the response of a prescribed burn at a tidal marsh site in Weeks Bay National Estuarine Research Reserve (NERR) in Baldwin County, AL. Utilizing his educational background and his past experience in landscaping, he joins the BSEI team overseeing greenhouse trials conducted at the corporate facilities in Hattiesburg, Mississippi and assisting on field trials at BSEI's plots in Moselle, Mississippi.

Our Story

In the early part of the new decade, particularly after the year 2000, many fundamental changes in the global economy began to surface. Among them was a new initiative for carbon sequestration and the conversion of cellulose and waste products into biofuels for energy consumption. The present founders of BSEI Enhancers, Inc. were then busy operating a successful bioremediation company that consisted of franchisees operating in 30 states in the US.



The core competency of the remediation business was manufacturing and providing microbial products for the treatment of grease traps that belonged to restaurants, hotels, schools, and other commercial cooking establishments and were serviced by the individual franchisees. As the initiative for converting grease waste into biodiesel and other value-added products grew, the market for remediating grease traps began to weaken. Cooking oil, and other grease related products that accumulated in grease traps were being collected, sold, and processed for biofuels.

In the early part of 2002, the now founders of BSEI had begun to investigate the possibilities of developing microbial products for soil enhancement and plant enrichment. The first trials were actually conducted on Wayne Wade's farm in 2003 in Jones County, MS. The trials continued until August 29, 2005 at which time Hurricane Katrina completely destroyed the field trial crops for that year. With the realization that the recovery time would be long and tenuous, the current founders decided that it was time to refocus their efforts on a more sustainable future.

During the spring of 2006, Dr. Krish Reddy and Wayne Wade made the necessary trip to Michigan State University to meet with Dr. C.A. Reddy and convince him to accept the challenge of developing microbial products for sustainable agricultural inputs. On the condition that Dr. Lalithakumari Janarthanam would assist him and lead the research team, he accepted the challenge and today, both Dr. C.A. and Dr. Lalithakumari are named as the inventors of SumaGrow® .

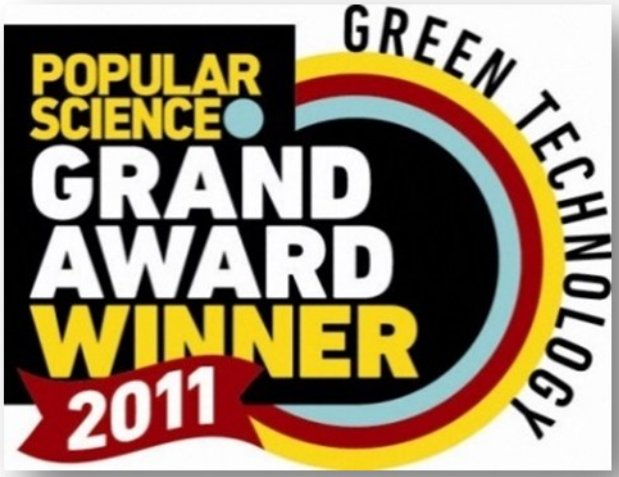
BSEI has since assembled a team of brilliant scientists and agronomists to continue the research and development of microbial products aimed at helping farmers, homeowners, and gardeners grow crops, lawns, and gardens in a more sustainable and environmentally friendly way.

SUMAGROW

SumaGrow® Awards and Recognitions

2013 - INC 500

Bio Soil Enhancers, Inc. ranked 2nd on the 2013 Inc. Magazine's list of the 500 fastest growing private U.S. companies for manufacturing and 77th overall. Additionally, Bio Soil Enhancers, Inc. (BSEI) was named as the #1 fastest growing company for all categories in the state of Mississippi. BSEI was recognized for its astounding 3-year growth of over 4,000% and revenue of almost $5 million for 2012.



2013 – Corn & Soybean Digest

The article "FFA Plots Seek Better Soybeans" highlights the 2012 Illinois Yield Challenge and ***SumaGrow®***'s potential long-term benefits on soil. The top producing team used a product containing ***SumaGrow®*** to improve soil health and enhance yields.

2012 – Hemispheres Magazine

In the 2012 "green issue" of the United Airlines inflight magazine, ***SumaGrow®*** was recognized as an eco-friendly alternative to chemical fertilizers.

2011 Illinois Yield Challenge – 1st Place Winner

"The purpose of the Yield Challenge -- funded by the Illinois soybean checkoff -- is to provide a platform that encourages soybean growers to try new yield-enhancing practices and share the information learned through those innovations…"

2011 – Popular Science Grand Award Winner in the Green Tech Category

"…. Forage Boost's microbes replace naturally occurring ones that are lost in over farmed soil, increasing productivity by locking nitrogen in the soil and breaking down organic waste into useful nutrients. The treatment increases grass yield by some 20 percent over standard fertilizer. And because microbes create micro-channels in the soil structure, water runoff decreases by about half, reducing watering needs."

2009 – Popular Science Magazine

In an article entitled "The Future of Farming: Eight Solutions for a Hungry World," ***SumaGrow®*** technology was featured as a solution to address the world's ever-growing food needs.

2009 – Forbes.com "Bio Soil Enhancers develops organic solutions to improve crop yields and reduce the use of synthetic fertilizers…"

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