## Future AG Sustainable Goals

**September 15-16, 2020** Hilton San Diego Mission Valley San Diego, CA, USA

## EXCELLING INNOVATION FOR THE FARMING NEEDS OF THE FUTURE: KNOWLEDGE & NETWORKING IN SUSTAINABLE AGRICULTURE, PRECISION AG & AGTECH

From lab to land: Connect, accelerate and excel your agri input solutions & digital technologies

> Organised by New AG International

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## BIOCONTROL | PRECISION AG | AGTECH | PLANT NUTRITION | INTEGRATED PEST MANAGEMENT

# Meet some of the brightest minds & inspirational leaders in agriculture today!



**Ry Wagner** President of International Agribusiness, ALGAENERGY



Sarah Nolet Partner and CEO, AgTehntic & Founder, TENACIOUS VENTURES, Australia



Annett Rozek Chief Scientific Officer, TERRAMERA



Sam Schatz Managing Director, AEROFARMS, USA



Charles Baron Co Founder&Chief Innovation Officer, FARMER BUSINESS NETWORK



Mariana Vasconcelos Founder, AGROSMART, Brazil



Norm Davy Chief Revenue Officer, HELIAE **Gregory Whiting** Associate Professor and PI, UNIVERSITY OF COLORADO BOULDER, USA

#### **IPM, BIOLOGICALS & BIOMES**

- >>>> Meet up and coming bioag pioneers as well as core established players who are leading the way. Special focus

#### **PRECISION AG & AGTECH**

- >>>> Latest advances in precision agriculture and agtech with focus and direction on how such technology can be
- **b b b** combined with biological crop protection and plant nutrition

#### **SCIENCE & COMMERCIAL**

- Scientific and commercial content on biocontrol and biostimulants plus a whole track dedicated to agtech and
- >>>> precision farming. Revealing mode of action insight, field trial data and ROI discussions

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08:00	Morning Registration		
	Biological & Agri Input: Market Statistics & Retail Innovation	New Agri Era: The Farm of the Future	
08.50	Opening Remarks from the Chairperson	Opening Remarks from the Chairperson	
09:00	<ul> <li>Biopesticide and Biostimulant Market Trends and Forecasts: Helping Strategize Market Growth Plans</li> <li>How has the biopesticide market changed over the past 12 months?</li> <li>What is the estimated size of the market today and what are our future projections for market growth</li> <li>Biostimulant market: size, growth and newcomers to industry</li> <li>Mark Trimmer, Co-Founder, Dunham Trimmer, USA</li> </ul>	<ul> <li>The Revolution of Vertical Farms</li> <li>How the use of new technologies can change the farm as we know it</li> <li>Skills and tools farmers must learn to be prepared to the next farm era</li> <li>How it works and technologies to make it happen</li> <li>Benefits of vertical &amp; indoor farming compared to classical farming</li> <li>Can farmers be global? Vertical farm as multinational companies</li> <li>Utilizing IoT &amp; AI to change the farm concept</li> <li>Sam Schatz, Managing Director, AeroFarms, USA</li> </ul>	
09:25	<i>Q&amp;A plus time to move between tracks</i>	<i>Q&amp;A plus time to move between tracks</i>	
09:30	<ul> <li>Disrupting the Way Agri Products are Being Retailed</li> <li>The challenges with how agri products are currently being retailed</li> <li>Can an online platform be a suitable solution?</li> <li>How are we changing the way agri products reach distributors and farmers?</li> <li>Charles Baron, Co-Founder, Farmers Business Network, USA</li> </ul>	<ul> <li>Trends We are Seeing in Regards to Farming for the Future – With a Focus on Agtech and Precision Ag Innovations</li> <li>Precision ag- key players and new comers</li> <li>How will precision ag help the application on fertilizers and other agri inputs?</li> <li>Agtech market statistics and a market overview</li> <li>Jeff Caldwell, Content Marketing Manager, Lessing-Flynn, USA</li> </ul>	
09:55	Q&A plus time to move between tracks	Q&A plus time to move between tracks	
10:00	<ul> <li>PANEL DISCUSSION: Sustainable Agriculture – Building a Sustainable Supply Chain with the Phytobiome Ecosystem at the Forefront of Innovation</li> <li>What is sustainable agriculture : what does this mean to you? Do we all share the same definition?</li> <li>The importance of the phytobiome within the vision of a sustainable future</li> <li>The farmer and retailer perspective- how does the phytobiome impact food retail?</li> <li>Supermarkets and retailers: what is their perspective on sustainable agriculture?</li> <li>Panelists:</li> <li>Kellye Eversole, Chair of the Board, Phytobiome Alliance, USA Other panellists to be announced</li> </ul>	Spotlight Session This session will be hosted by a leading innovator within the AgTech sector. To register interest to present in this session please email alexander.zenonos@newaginternational.com	
10.30	Morning Coffee 8	Networking Break	

## DAY ONE • TUESDAY, 15 SEPTEMBER 2020

	IPM: Uniting Biology & Chemistry for Sustainable Agri Solutions - Part 1	Precision Agriculture and AgTech Implementation: Investment and Costs of Adoption
11:10	<ul> <li>IPM: Biological Peptides as a Tool for Farmers in IPM Programmes – A Technical and Scientific Case Study From Vesteron</li> <li>Developing products with efficacy that is on par with chemical pesticides</li> <li>Understanding mode of action and how such technology really works whilst remaining non toxic to the environment</li> <li>A success story- from research and development to being used in the field</li> <li>Learnings: the challenges and how they were overcome and the market access journey</li> <li>Andy Renz, VP Business Development, Vesteron, USA</li> </ul>	<ul> <li>PANEL DISCUSSION: Investing in the New Ag Era and the Future of Farming</li> <li>What investments banks and governments are seeking and expecting around the world</li> <li>Are we seeing return of investment in the AgTech space?</li> <li>Is the growth expected to continue or is it slowing down?</li> <li>Area of investment: exciting opportunities</li> <li>Investment Opportunities Global Overview: Value from Precision Agriculture &amp; AgTech (vs Hype)</li> <li>An insight on what investment firms are looking for in the Precision Agriculture and AgTech Sectors</li> <li>How can the government help?</li> </ul>
11:30	<ul> <li>The Discovery of Unique Microbes with High Value Traits for Agriculture</li> <li>Research pipeline and developing a discovery portfolio in agriculture : focusing on biofungicide development that can be used both in the field and post-harvest</li> <li>Microbial discovery for biocontrol: using multiple microexperiments to measure the performance and interactions of different microbes in agriculture.</li> <li>Dual active mode of action – is this the way forwards and can this help reduce resistance?</li> <li>James Pearce, Chief Scientific Officer, Boost Biomes, USA</li> </ul>	<ul> <li>Panelists:</li> <li>Sarah Nolet, Partner and CEO, AgThentic &amp; Founder, Tenacious Ventures, Australia</li> <li>Spencer Stensrude, Executive Director, Ag Ventures Alliance, USA</li> <li>Carter Williams, CEO and Managing Partner, iSelectFund, USA</li> <li>Gil Demeter, Vice President, Pontifax AgTech, USA</li> </ul>
11:50	<ul> <li>Sustainable Formulation Technology for Plant Protection Products – including Biocontrol</li> <li>New adjuvant/ surfactant technology that can be used in IPM programmes</li> <li>Products that work with biocontrol</li> <li>Formulation know how from a leading formulation supplier</li> <li>Session on hold for Clariant</li> </ul>	<ul> <li>Success Stories on Crop Profitability: Minimalizing Input Costs and Maximizing Earnings</li> <li>Measuring financial gains post technology adoption</li> <li>Farming pre-adoption vs post-adoption</li> <li>Analysing Profitability post-technological adoption</li> <li>Patrick Christie, Founder and EVP, Sales &amp; Marketing, Conservis, USA</li> </ul>
12:10	<ul> <li>Biocontrol Innovations and Advancements: R&amp;D, Science and Technical Know How</li> <li>Bioherbicide research – progress and insight into bioherbicide development</li> <li>Pipeline progress – showcasing the most recent biocontrol agents on the market complete with field trial results</li> <li>Cannabis as a market for biocontrol use – why we see potential in this market</li> <li>Proposed Speaker: To be announced</li> </ul>	<b>Spotlight Session</b> This session will be hosted by a leading service provider or biological pioneer within industry. To register interest to present in this session please email alexander.zenonos@newaginternational.com
12:30	Lunch & Netv	vorking Break

#### DAY ONE • TUESDAY, 15 SEPTEMBER 2020

	Biostimulants: From R&D to the Farmers Field	Precision & AgTech: Technological Advancements for Better Crop Management
14.00	<b>Biostimulant Scientific Field Trial Results</b> This session will be hosted by a leading biostimulant producer or academic researcher	<ul> <li>How Can Precision Ag and AgTech Enhance Precise Irrigation Management?</li> <li>Efficient water usage: less water consumption</li> <li>Increase your profits in field through</li> <li>A sustainable way to only give water for crops when plants when they require</li> <li>Kevin France, CEO, SWIIM, USA</li> </ul>
14:20	A Scientific Case Study on Recent R&D Innovations Ry Wagner, President, International Agribusiness, AlgaEnergy, USA	<ul> <li>Why are Eyes in the Sky Needed to Make Precision &amp; Agtech Work</li> <li>What are the requirements for remote sensing imagery for agriculture?</li> <li>What makes a remote sensing imagery program successful?</li> <li>How to implement a successful remote sensing imagery program?</li> <li>What is the road forward for remote sensing imagery to make precision &amp; agtech work?</li> <li>Robert Morris, CEO and Founder, TerrAvion, USA</li> </ul>
14:40	A Sea To Soil Case Study: Plant Health And Nutrition Innovations From Seaweed Brandon Barney, Co-Founder, Primary Ocean, USA	<ul> <li>A New Type of Sensors: 3D-printed Biodegradable Soil Sensors</li> <li>Why sensor technology is of importance for farmers?</li> <li>A new, efficient and more cost-efficient way to monitor crop condition</li> <li>Using 3D-printed biodegradable sensors to decrease farmers energy use and increase crop profitability</li> <li>Gregory Whiting, Associate Professor and PI, University of Colorado Boulder, USA</li> </ul>
15:00	Building An Biological Discovery Platform Fueled by Collaboration Speaker to be announced	<ul> <li>PANEL DISCUSSION: Satellites Imagery Directly from the Sky and Data Integration</li> <li>Satellite sensors and how they are being used agriculture</li> <li>GIS mapping for more efficient production practices</li> <li>Geospatial solutions and analysis</li> <li>Proposed Panelists: A representative from Planet</li> </ul>
15:20	Networking Ret	freshment Break



**"Rarely do you get such a diverse group of ag experts together** to discuss everything from integrated pest management to <u>agricultural investing</u> within precision ag and agtech.

New AG International has done just that through their **"Future Ag Sustainable Goals"** event slated for 15-16 September 2020 in San Diego CA (pending COVID-19 situation).

At a time when collective minds are needed to solve some of the most pressing issues within the ag supply chain, New AG International aims to bring together some of the brightest and most innovative minds to begin to tackle these unprecedented challenges. Myself and the <u>AGD</u> team are humbled and honored to be a part of the discussion."

- Michael J. DeSa, Founder/Managing Director, AGD Consulting

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	The Agri Input Distribution Network & Farmer Community Feedback	Future AG: Sustainable Goals Showcase
16:00	<ul> <li>The Distribution Network in the USA</li> <li>The key players- retailers and distributors in North America</li> <li>How to access and connect with the key distributors in the USA</li> <li>What challenges are distributors facing?</li> <li>The distribution supply chain – reviewing various supply chain models – pro and cons and how to decide your supply chain strategy</li> <li>Marco Toapanta, Founder, Agrinova, USA</li> <li>Insight and Feedback from Food Producers and the Farming Community</li> <li>Feedback and insight from customers- what products are in demand? le those that contribute to regenerative agriculture practise</li> <li>Where are there gaps in the market for future product potential?</li> <li>Farmer needs and requirements: farmer survey findings</li> <li>Nils Michael Langenborg , Co-Founder, ReGenFriends, USA</li> </ul>	<ul> <li>Entrepreneurs and innovators will take the stage and deliver a 5 minute technology review related to their innovations. The following points will be discussed:</li> <li>1. Company technology profile</li> <li>2. Technology and IP status</li> <li>3. Registration status and market access potential</li> <li>4. Partnership / investment goals</li> <li>For Q&amp;A there will be time to meet each entrepreneur after the session has closed during our networking evening reception.</li> <li>The full line up of entrepreneurs and innovators will be announced the week before the event but includes representatives from the following companies:</li> <li>1. Kray</li> <li>2. Motorleaf</li> <li>3. Green New Technologies</li> <li>4. Phospholutions</li> <li>And 2 more companies to be announced</li> </ul>
17:00	Summary Comments and Networking Reception	Summary Comments and Networking Reception



## DAY TWO • WEDNESDAY, 16 SEPTEMBER 2020

	Regenerative Agriculture and the Science Behind the Plant and Soil Microbiome	<b>Robotics and Automation</b>
09:00	FEATURED SESSION: Live From the Frontier of Regenerative Tropical Agriculture Thomas Newmark , Proprietor & Farmer, Finca Luna Nueva Lodge, Costa Rica	<ul> <li>Crop Scouting: Can Robots Replace Humans?</li> <li>'Crop scouts' walks among the plants vs automated crop analysis to assess crop health and performance</li> <li>Addressing the challenges and opportunities within crop scouting: can we trust human opinions?</li> <li>challenges and opportunities in using deep learning to assess crops and, ultimately, use that data to create vast digitized database phenotypes of every genotype of every crop given different recipes of water, light and nutrients</li> <li>The benefits of using robots for crop analysis: price analysis and a further analysis of the crop</li> <li>Creating a vast digitized database phenotype of every genotype of every crop given different recipes of the crop</li> <li>Mark DeSantis, CEO, Bloomfield Robotics, USA</li> </ul>
09:20	<ul> <li>Soil Health is the Key to Modern Day Regenerative Agriculture</li> <li>Drive significant yield and profitability naturally by improving your soil health</li> <li>Healthy productive soils are built by active microbes</li> <li>Improve soil biology to drive a positive impact on soil structure and chemistry</li> <li>Activating soil microbes improves water and nutrient use efficiency</li> <li>Build plant resilience against abiotic stressors by activating native soil microbes</li> <li>Norm Davy, Chief Revenue Officer, Heliae, USA</li> </ul>	<ul> <li>Robots vs Drivers: What Management Approach is More Feasible in the Field?</li> <li>Potential impact as to how pesticides are applied</li> <li>Place of non-graphed areas: hinges and trees (more difficult fields)</li> <li>Engineering challenges</li> <li>Chinmay Soman, Co-Founder and CEO, EarthSense, USA</li> </ul>
09:40		Spotlight Session This session will be hosted by a leading service provider or biological pioneer within industry. To register interest to present in this session please email alexander.zenonos@newaginternational.com
10:00	<b>Regenerative Agriculture Q&amp;A</b> During this session previous speakers will take questions from the audience for an interactive Q&A session	The Use of Automated Drones in Precision Ag         • Camera and analytic tools         • Integrating drone mapping         • Aerial biocontrol         Andreas Neuman, CEO, UAV-IQ Precision Agriculture, USA
10:20	Networking Re	freshment Break

## DAY TWO • WEDNESDAY, 16 SEPTEMBER 2020

	IPM: Uniting Biology & Chemistry for Sustainable Agri Solutions - Part 2	Agricultural Advancements: Helping the Environment and Ensuring Regenerative Food Supply with AgTech
11:30	<ul> <li>Biological R&amp;D Advances: Microbial Strains – The Future of Biocontrol?</li> <li>Exploring research programmes and latest microbial field trial results</li> <li>The challenges we face and how to deal with such hurdles (stability and efficiency for example)</li> <li>Reviewing the science ,how our products work – demonstrated with field trial results</li> <li>Biological gaps in the market – where do we see potential?</li> <li>Marcus Meadows Smith, CEO, BioConsortia, USA</li> </ul>	<ul> <li>KEYNOTE PRESENTATION: Driving Performance and Sustainability Through Precision Ag</li> <li>Driving performance and sustainability through Precision Ag</li> <li>How can Precision Ag &amp; AgTech be used to help the environment?</li> <li>How can agricultural advancements help ensure meeting food supplies?</li> <li>Urbanization is increasing: can food productivity keep up?</li> <li>Are new global farming competitors rising? farmers in Sweden, Tokyo, Singapore – will the farmer of the future need to use land?</li> <li>As urban and vertical farming increases, will farm land use decrease?</li> <li>What does more farming competitors mean for agricultural economy?</li> <li>Sarah Nolet, Partner and CEO, AgThentic &amp; Founder, Tenacious Ventures, Australia</li> </ul>
11:50	<ul> <li>Helping Biological Products Contribute to IPM Programmes: Regulating Biological Products in the USA</li> <li>Regulatory status for biopesticides in the USA (the current process and regulatory requirements)</li> <li>Regulatory status and process for Biostimulants (data requirements and processes)</li> <li>David Beaudreau, Executive Director, Biostimulant Coalition &amp; Senior Vice President, DCLRS, USA</li> </ul>	This session is reserved for FBSciences
	Sustainable Agri Solutions That Tackle Climate Change, Abiotic & Biotic Stresses	Connectivity For Smart Agriculture & Food Supply
12:10	<ul> <li>Looking at Different Potential Scenarios to Curb the Nitrogen Pollution Challenge</li> <li>Examining the interconnected challenges of nitrogen pollution, food security and sustainable development</li> <li>David Kanter, Ph.D., Assistant Professor of Environmental Studies, New York University, USA</li> </ul>	<ul> <li>Introducing New Technologies to Better Connect Our Water and Food Supplies - Specifically Designed to be Modular and Available for Anyone and Everyone</li> <li>The future of wastewater treatment is on-site, modular, available for everyone, and doesn't waste any nutrients in the water that could be used to grow a precious supply of food</li> <li>Rachel Major, CEO and Co-founder, NuLeaf Tech, USA</li> </ul>
12:30	Lunch & Netw	vorking Break

	Sustainable Agri Solutions That Tackle Climate Change, Abiotic & Biotic Stresses (continued)	Connectivity For Smart Agriculture & Food Supply (continued)
14:00	<b>Challenge: Dealing with Drought</b> Abiotic stress management remains one of the most important issues facing the turfgrass and agricultural industries today. As the world supply of potable water declines and with climate change expected to intensify and prolong drought, globally, scientists and growers must assess alternate strategies to improve plant performance under severe stress, water deficit conditions. The objective was to evaluate a novel, naturally- derived compound (biostimulant) to improve turfgrass, ornamentals, forage crops and seedlings performance under several drought stress and non-drought conditions. Greenhouse trials were conducted in 2016 and 2017, and field trials were conducted in 2017 and 2018. Drought and non-drought conditions were tested in the greenhouse with 75% water savings vs. control (water only) and 70 days of drought tolerance (no water) with no loss of visual quality across all six genotypes tested. In addition, root and shoot growth was enhanced vs. Nitrogen control (N check). Moderate drought (75% ETos) and severe drought (50% ETos) conditions were tested in the field with positive results vs. a fully synthetic commercial control. Response variables included total water applied, % water savings vs. control, Volumetric Water Content (VWC), visual quality score, Normalized Difference Vegetation Index (NDVI), hydrophobicity assessment (water droplet penetration test), turf growth and root mass. This novel biostimulant has a significant effect on water savings, drought tolerance and shoot and root development across several species, and even under severe drought conditions, can keep turfgrass visually looking green and vigorous. While the results from these trials were encouraging for turfgrass and other plants, additional research is needed to determine the effect on specialty and row crops. <b>Chris Jordan</b> , President, J <b>RX Biotech</b> , USA	The Digital Agriculture Platform to Help Farmers Make Data-Driven Decisions         Mariana Vasconcelos, Founder, Agrosmart, Brazil
14:20	Challenge 2: Climate Change Impacts: Developing Products That Can Help Tackle Climate Change Annett Rozek, Chief Scientific Officer, Terramera, Canada	Fireside Chat Mariana Vasconcelos, Founder, Agrosmart
14:40	Networking Break &	& Speed Networking

	Technology Adoption & Future AG Sustainable Goals Showcase Summary Session	
15:10	PANEL DISCUSSION: Strengthening Communication and Sense of Community Between Farmers and Growers and Agtech Industry	
	• Giving a voice to farmers and growers: addressing farmers concerns in adopting new technologies	
	Technology adoption depends purely on location and equipment replacement	
	Minimizing the gap between technology providers and producers	
	Why are technologies being developed but not adopted by farmers?	
	Get a breath of growers from different regions and understand their specific needs	
	<ul> <li>Adoption: how can small farmers maintain themselves vs large farmers?</li> <li>Selecting the technologies to best suit farm size</li> </ul>	
	Farmers to engage with the right equipment and data	
	Understanding the true benefits behind adoption	
	How will New Techs in Agriculture Affect Farmers Employment?	
	• What does tech adoption mean for manual labour?	
	• What will be the pre-requisites to become a farmer in this new era of farming?	
	How to have enough labour with the adoption of new techs in agriculture	
	Panelists:	
	Brad Fruth, Director of Innovation, Becks Hybrid, USA	
	Jeff Caldwell, Content Marketing Manager, Lessing-Flynn, USA	
	Mariana Vasconcelos, Founder, Agrosmart, Brazil	
	Michael J. DeSa, Farmer, Founder and Managing Director, AGD Consulting, USA	
15.50	The Future of Farming and Agriculture: Connecting Plant Health, Crop Protection and Agtech Communities	
	Kellye Eversole, Chair of the Board, Phytobiome Alliance, USA	
16:10	Showcase Award & Summary Session	
16.20- 16:40	Closing Remarks & End of Conference	

