



Phytobiomes: A New Vision for Agriculture

Name

Date

Conference & City Country



International Alliance for Phytobiomes Research



- Nonprofit, precompetitive research consortium
- Industry, academia, and government
- Paradigm shift in agricultural research& production



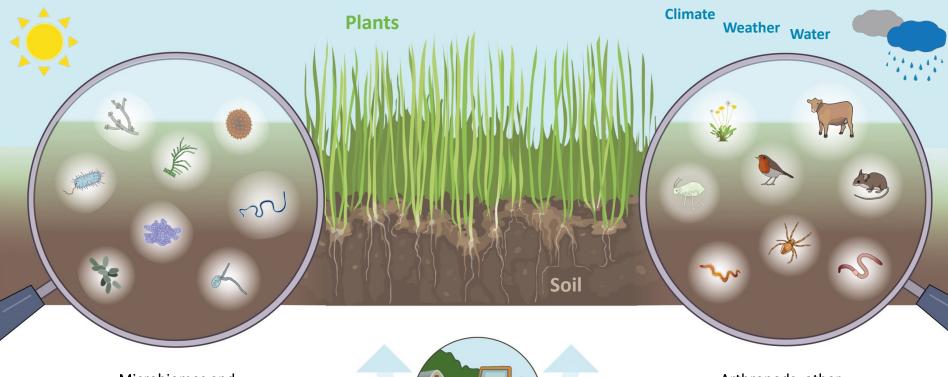
Vision: By 2050, all farmers have the ability to use predictive and prescriptive analytics based on geophysical and biological conditions for determining the best combination of plants, management practices, and inputs for a specific site in any given year.



Strategy: Identify gaps in research, tools, and technologies and develop projects to address them.



Phytobiomes: Complex Systems of Plant-based Agriculture



Microbiomes and macroorganisms/macrofauna

Arthropods, other animals and plants

All influenced by management practices



Examples of Phytobiomes





Holy Grail for Phytobiomics



To understand, predict, and control emergent phenotypes within specific phytobiomes for the sustainable production of food, feed, and fiber.



Phytobiomes Alliance Vision



By 2050, all farmers have the ability to use predictive and prescriptive analytics based on geophysical and biological conditions for determining the best combination of plants, management practices, and inputs for a specific site in a given year.



Research Priorities



Phytobiomes-knowledge generation



Standards and protocols & capacity building for application



Regulatory framework



Data generation, management & modeling



Multi-disciplinary capacity building



Precision, digital and Al Ag integration



Efforts: Linking Components Across Phytobiomes System



Increased engagement in Europe: Microbes 4 Climate and MICRObiome Biobanking Enabler



Phytopathology article: From Microbes to Microbiomes: Applications for Plant Health and Sustainable Agriculture



Phytopathology article: Genotypic & Phenotypic Analyses Show Ralstonia solanacearum Cool
Virulence is a Quantitative Trait Not Restricted to "Race 3 Biovar 2"



Secured US NSF grant to Coordinate Microbial Collections and Networks: Public & Private



Novel Microbiome Technologies to Increase Profitability for Australian Horticulture

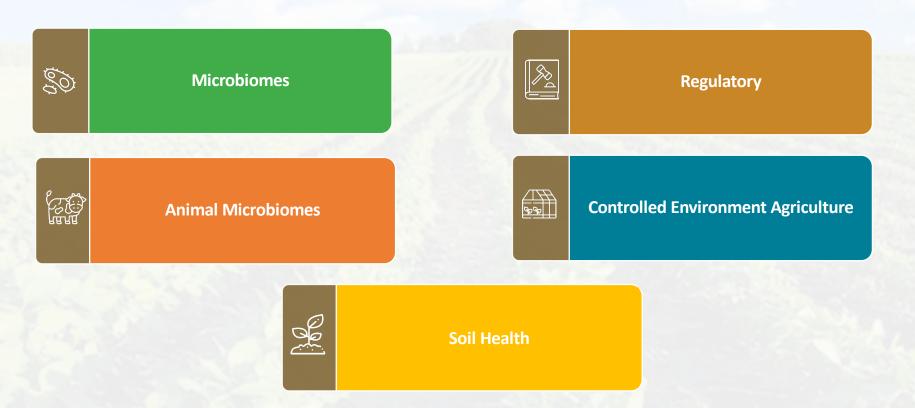


Establish Linkages and Commonalities between Plant and Animal Health & Nutrition



Phytobiomes Alliance Working Groups

Identify gaps and research needs; coordinate efforts on specific topics



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The Alliance in Action

sustainable &

profitable solutions

that guide producers'

Translating Research Outcomes into Results

Work with the international **Build multidisciplinary** Teams build research Implementation of the community to identify teams & industry plan & secure funding research plan Research need or linkages problem Participate in Identify needs & add Build links with teams Ensure focus on research & guide accountability translational research or active members success

Industry Sponsor Participation



Phytobiomes Alliance Sponsors



















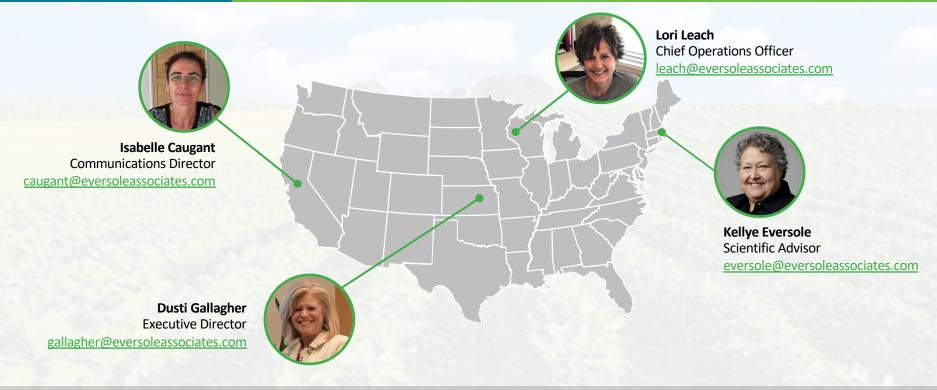




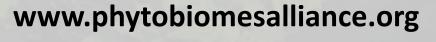




Alliance Staff: Get in Touch with Us











Thank you for listening

www.phytobiomesalliance.org





