



Valent BioSciences and Our PGR Portfolio

Ted Melnik

Sumitomo Chemical & Valent BioSciences



- Valent BioSciences is the biorational and biostimulant business of Sumitomo Chemical Company
- Sumitomo Chemical is a global leader in creative solutions for health and crop science and delivers on its promises:
 - Proven reliability
 - Steadfast quality control
 - Commitment to society and the environment for centuries
- Valent BioSciences operates with a Sumitomo Spirit mindset of Jiri Rita - striking a balance between our business interests and that of society

Valent BioSciences' Biorational Portfolio

Biorational Crop Enhancement



Quality, Yield, & Stress Management

Biorational Crop Protection



Foliar Insect & Disease Protection

Biorational Rhizosphere



Plant & Soil Health, Bionematicide, Biofungicide

Public Health & Forest Health



Vector Control, Forest Protection



Pace International



Sustainable Postharvest Products

Valent BioSciences' Centers of Operation

**Biorational Research
Center, SynBio Hub
and Global Headquarters**
Libertyville, IL



**Valent BioSciences
Osage Manufacturing**
Osage, IA



Mycorrhizal Applications
Grants Pass, OR



Pace International
Wapato, WA



**Mycorrhizae & Root Imaging
Danforth Center**
St. Louis, MO



**Health & Crop Sciences
Research Laboratory**
Takarazuka, Japan

Fermentation Plant in Osage, Iowa

- Began production in 2014 with multiple 100,000 liter scale fermenters
- Our second expansion will be completed in mid-2024 (additional fermentation and recovery equipment, new pilot plant and expanded laboratory space)
- Home to two major sustainability initiatives:
 - 12-acre solar field that offsets some of the facility's energy usage
 - 34-acre prairie reconstruction supports diverse plant and wildlife habitat



Biorational Research Center and Headquarters

- Opened in 2018 in Libertyville, Illinois
- Global headquarters opened in 2020
- Includes numerous research areas
- First major R&D expansion for lab space, pilot fermentation and greenhouse will be completed in early 2024



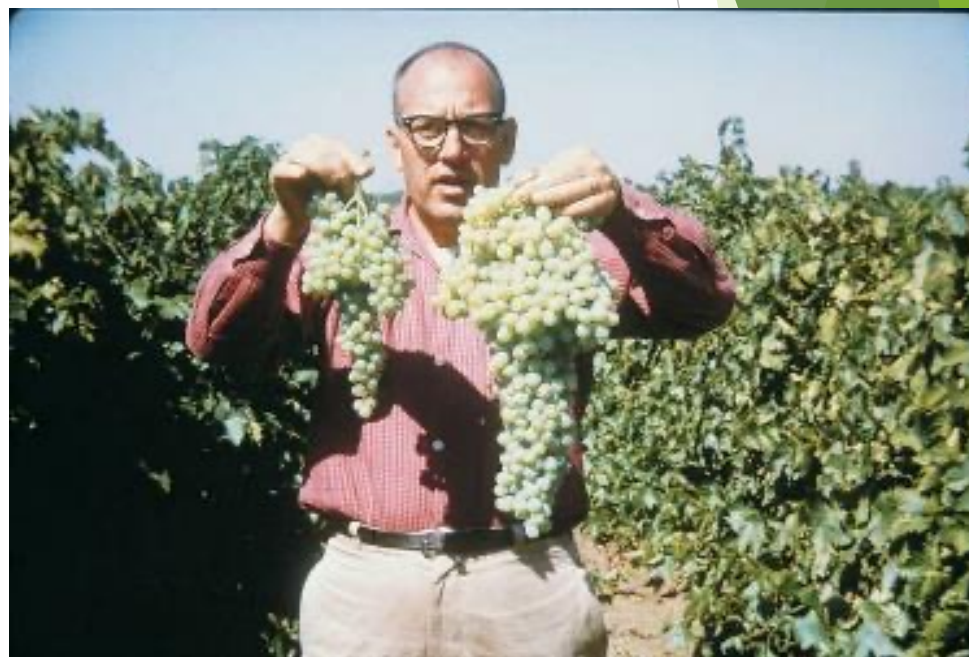
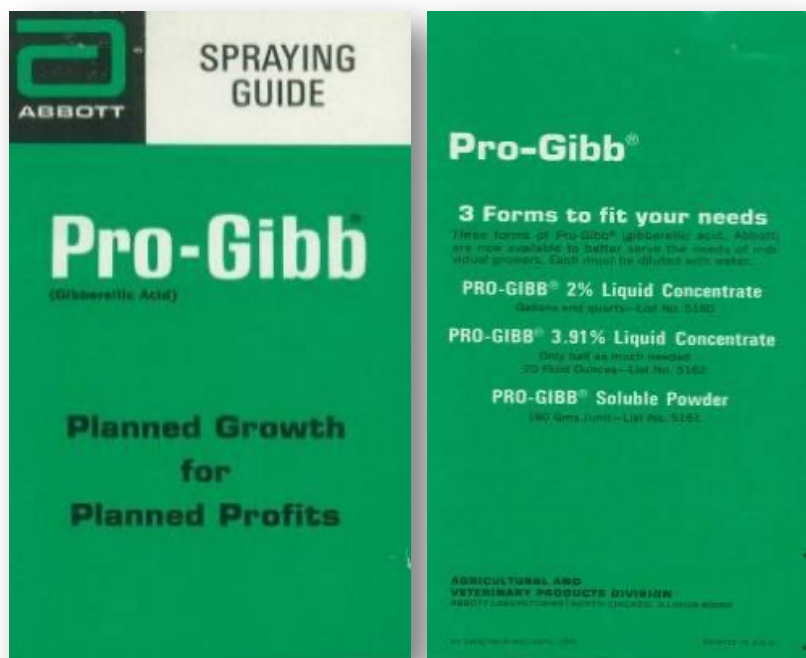
FBSciences Acquisition

- Valent BioSciences announced the acquisition of FBSciences in January
- FBSciences is a leader in discovering and commercializing crop health technologies
- Products include biostimulants, biopesticides, and crop nutrition for seed, soil, and foliar applications
- Expands biostimulant product family and broadens integrated biorational product portfolio
- Accelerates Valent BioSciences' strategy to bring sustainable technologies and products to growers



It All Started with ProGibb® on Grapes

1962 ProGibb Label and Spray Guide

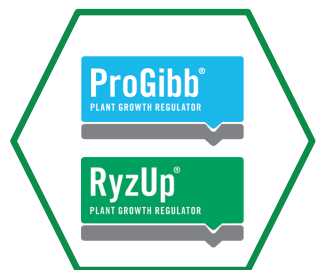


Plant Growth Regulators: Benefits for Growers

PGRs precisely influence plant physiology to:

- Improve fruit and grain quality
- Optimize crop management (saving labor, equipment)
- Maximize nutrients and water utilization
- Manage biotic and abiotic stress
- Modify crop cycle (germination, senescence)

Valent BioSciences Has Commercial Products in Each of the 5 Classic Classes of PGRs



Gibberellins

Plant & Fruit
Development And Size
Seed Germination
Crop and Fruit Quality



Cytokinins

Fruit Abscission
Fruit Size
Branch Initiation



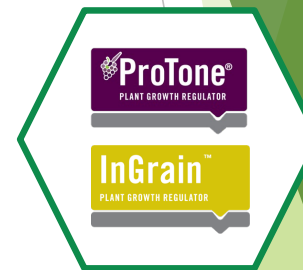
Auxins

Fruit Thinning
Fruit Drop Prevention
Improve Return Bloom



Ethylene

Fruit Ripening
Flowering Induction
Harvest Management
Fruit Drop Prevention
Fruit Set



Absciscic Acid

Grapes Color
Development
Carbohydrate
Manipulation
Stress Management

Next-Gen Fruit Thinner

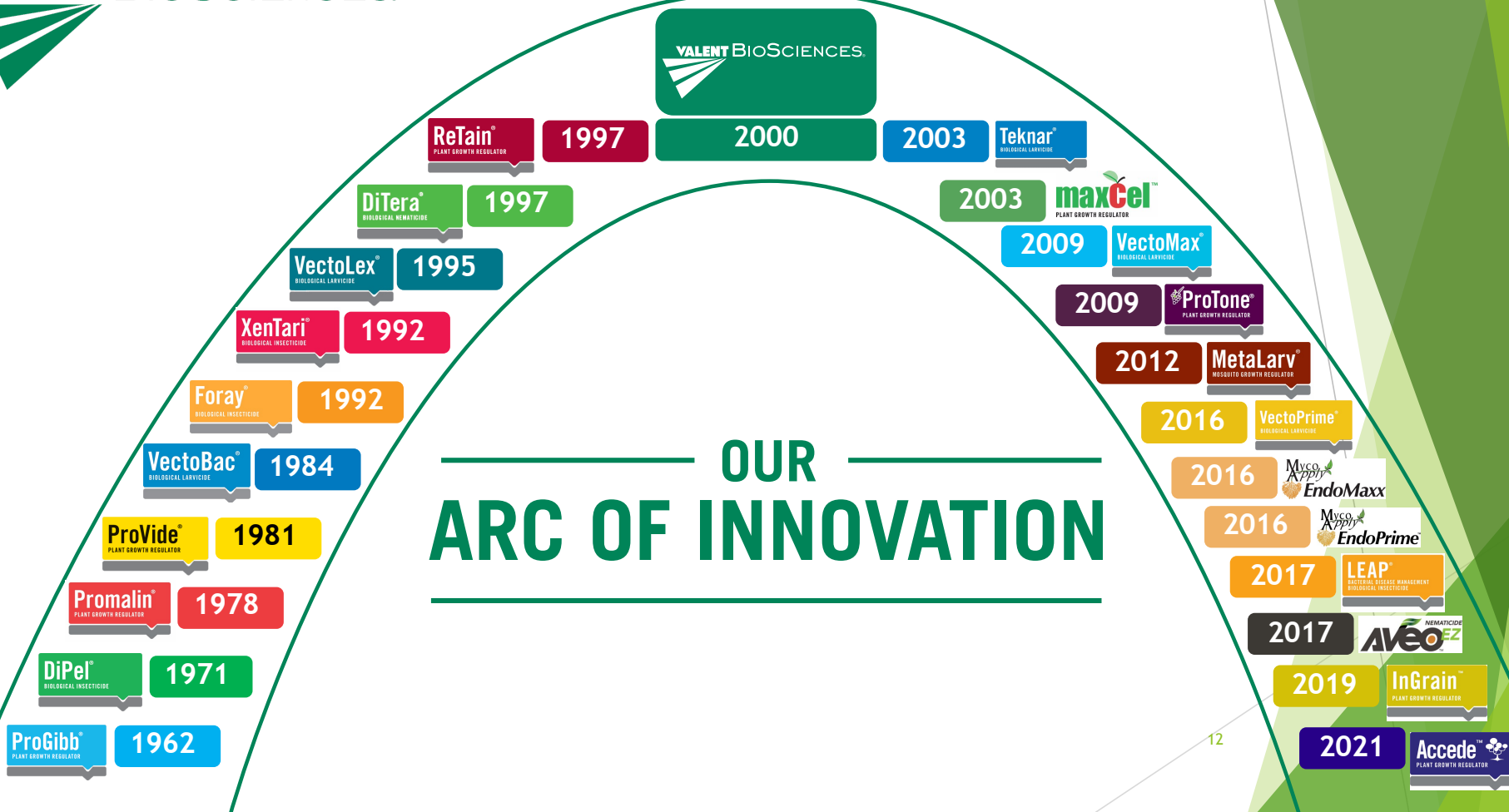
The Next Game-Changing Plant Growth Regulator



- **Apples:** First commercial product for late-season thinning
- **Stone Fruit:** First commercial thinning product
- **Grapes:** Ethephon replacement / partner with ProTone® Plant Growth Regulator



OUR ARC OF INNOVATION





Thank you!