

Welcome to the

10th World Convention on Stevia



Stevia Tasteful 2022: The Subtle Balance

Science, Formulation & Exhibition

June 2-3, 2022 - Radisson Blu Hotel - Lisbon, Portugal & Online





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What to expect during Stevia Tasteful 2022 ?



What to Expect



10th World Convention on Stevia

World Stevia Organization



+23 Communications



Join us on June 2-3, 2022 - Radisson Blu Hotel - Lisbon, Portugal & Online

Book of Abstracts and Videos

10th World Convention on Stevia Tasteful 2022

World Stevia Organization



Book of Abstracts

+23 Communications

Lisbon, Portugal & Online
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**THANKS TO ALL WSO
SPEAKERS**

STEVIA 2022 CONFIRMED SPEAKERS



**NanoGIT+Active and Super-Hyphenations -
Detecting the Essentials of Food**

Gertrud Morlock,
Justus Liebig University Giessen, Germany



Optimum Experiment Size for Stevia Trials

Todd Wehner,
North Carolina State University, USA



**Steviol Glycosides Profile in Stevia rebaudiana
Bertonii Hairy Roots Cultivated Under Oxidative
Stress-Inducing Conditions**

Marta Libik-Konieczny,
Polish Academy of Sciences, Poland



**Improve Steviol Glycosides Productivity by
Optimizing Nitrogen Fertilization Strategy**

Yuming Sun,
Institute of Botany, Jiangsu Province and Chinese
Academy of Sciences, China



**Recovery of Steviol Glycosides from Industrial
Stevia By-Product, Preparation and Practical
Application of Stevia in Milk Tea**

Xiao Hua,
Jiangnan University, China



**Spray Drying Encapsulation of Stevia Extract with
Maltodextrin and Evaluation of the Properties of
Produced Powders**

Maria Rosa Zorzenon,
State University of Maringá, Brazil



Stevia from Field to the Table - Case of Greece

Christos Stamatis,
CEO of Stevia Hellas Cooperative, Greece



**Metabolism and Effect of Steviol Glycosides and
Steviol on Human Gut Microbiome**

Sidd Purkayastha,
Vice President, Head of Global Scientific &
Regulatory Affairs at PureCircle/Ingredion Inc., USA



**Impact of Steviol Glycosides and Erythritol on
the Human and Cebus apella Gut Microbiome**

Karley Mahalak,
United States Department of Agriculture, Eastern
Regional Research Center, USA



**What Can Molecular and Biochemical Markers
Tell Us About a Stevia rebaudiana Genotypes'
Collection?**

Maria Margarida Ribeiro,
Polytechnic Institute of Castelo Branco, Portugal



Improvement of the Hepatic Antioxidative Status of Broiler Chickens by Feeding them Dry Stevia Leaf (*Stevia rebaudiana*) or Xylanase

Vasil Pirgozliev,
Harper Adams University, United Kingdom



Stevia Breeding & Cultivation 2022

Buhara Yücesan,
Bolu Abant İzzet Baysal University, Turkey



Recent Agronomic Development on Stevia towards a Tentative of Higher Productivity

Probir Kumar Pal,
CSIR - Institute of Himalayan Bioresource Technology,
India



***Stevia rebaudiana* Has the Potential to Improve Functional Recovery of Injured Peripheral Nerved in Diabetic Rats**

Armine Isoyan,
Orbeli Institute of Physiology NAS RA, Armenia



Effects of the Daily Consumption of Stevia on Glucose Homeostasis, Body Weight, and Energy Intake of Healthy Adults

John T. McLaughlin,
University of Manchester, United Kingdom



Branding Stevia Sustainability through Commercial Viable

Lucy Dahlgren,
Founder & CEO of THiS Less-is-more Group AB, Sweden



An Insight on the Future Therapeutic Application of Stevia Rebaudiana as Emerging Sweetener: A Way Forward for Sweetener Industry

Muhammad Farhan Jahangir Chughtai
KFUEIT, Pakistan



Breeding and Agricultural Supply Chain Expertise for a Fresh Look at Stevia Leaf Production and Processing

Gabriele Gusmini,
Founder of Plant Pathways Company, Inc., USA



Stevia in Food Product Development: Formulation and Evaluation

Rajnibhas Sukeaw Samakradhamrongthai,
Prince of Songkla University, Thailand



Day 1 – June 2

Stevia & Health Effects 2022 – Recent Advances & Perspectives



Effects of the Daily Consumption of Stevia on Glucose Homeostasis, Body Weight, and Energy Intake of Healthy Adults

*John T. McLaughlin, University of Manchester,
United Kingdom*

Does Sweetness with or without calories in real-life doses affect:

- **Energy intake (EI) ?**
- **Body weight (BW) ?**





Metabolism and Effect of Steviol Glycosides and Steviol on Human Gut Microbiome

Sidd Purkayastha, PureCircle/Ingregion Inc., USA

- ✓ **Study of Reb D and Reb M or their isomers**
- ✓ **Investigation of the Metabolic deglycosylation of**
 - ✓ **Reb D and Reb M**
- ✓ **Investigation of the human gut microbiome profile (presence/absence of steviol glycosides/steviol metabolite)**



Impact of Steviol Glycosides and Erythritol on the Human and *Cebus apella* Gut Microbiome

Karley Mahalak, United States Department of Agriculture, Eastern Regional Research Center, USA

What is the response of human gut microbiota to:

- **A common commercial combination of SGs and erythritol ?**
- **Erythritol alone ?**



Stevia Rebaudiana Enhances Functional Recovery of Injured Sciatic Nerves in High-Fructose Diet Rats

Armine Isoyan, Orbeli Institute of Physiology NAS RA, Armenia

The relationship between steviosides and metabolic disorders associated with neurological dysfunctions.

The preventive efficacy of stevioside against metabolic disorder associated with traumatic sciatic nerve injury.

Stevia & Health Effects 2022 – Recent Advances & Perspectives



Feeding Stevia (Stevia Rebaudiana) to Poultry: Effect on Dietary Energy and Nutrient Availability, Production and Health

Vasil Pirgozliev, Harper Adams University, UK

Dietary stevia increased hepatic carotenoid concentration in broilers/laying hens and the yellowness egg yolks.

It increased in hepatic vitamin E and coenzyme Q10 concentrations.

It had no impact broiler performance, egg production variables.



NanoGIT+active and Super-Hyphenations - Detecting the Essentials of Food

*Gertrud Morlock, Justus Liebig University Giessen,
Germany*

A planar on-surface all-in-one nanoGIT+active system can be used to identify activity conversions during digestion or metabolization.

Hyphenation with high-resolution mass spectrometry is demonstrated directly from the active zone on surface of the planar assay, making HPTLC a straightforward **method for analysis of Stevia products.**



What can Molecular and Biochemical Markers Tell Us About *Stevia rebaudiana* Genotypes' Collection?

Maria Margarida Ribeiro, Polytechnic Institute of Castelo Branco, Portugal

How to appropriately genotype *S. rebaudiana* accessions grown in the same plot using microsatellite markers, including two steviol glycosides biosynthesis functionally involved markers?



Improve Steviol Glycosides Productivity by Optimizing Nitrogen Fertilization Strategy?

Yuming Sun, Chinese Academy of Sciences, China

- ✓ **How to optimize the productivity of steviol glycosides?**
 - ✓ **What is the relationship between nitrogen (N) administration and SGs synthesis?**
 - ✓ **What is the role of N fertilization strategies on SGs productivity?**

Day 1 – June 2

Stevia 2022 – Characterization & Optimization



Steviol Glycosides Profile in *Stevia rebaudiana* Bertoni Hairy Roots Cultured under Oxidative Stress-Inducing Conditions

Marta Libik-Konieczny, Polish Academy of Sciences, Poland

The ability of *Stevia rebaudiana* Bertoni to synthesize particular steviol glycosides, in hairy roots grown in the light or in the dark under the influence of different osmotic active compounds.





Spray Drying Encapsulation of Stevia Extract with Maltodextrin and Evaluation of the Properties of Produced Powders

Maria Rosa Zorzenon, State University of Maringá, Brazil

- ✓ **The Formulation and performance of physicochemical and functional characterization of maltodextrin microcapsules containing ethanolic extract of stevia encapsulated by a spray-drying process with two maltodextrins.**

Stevia in Food Industry - Innovations & Technologies



An Insight on the Future Therapeutic Application of Stevia Rebaudiana as Emerging Sweetener: A Way Forward for Sweetener Industry

Muhammad Farhan Jahangir Chughtai, Khwaja Fareed University of Engineering & Information Technology, Pakistan

- ✓ **Stevia powder and extracts are used to enhance consumer acceptability.**
- ✓ **Stevia helps in preparation of functional and medicinal foods that augment health status**
- ✓ **Stevia use is not limited to sweetening but it is a promising **phytotherapy candidate****



Recovery of Steviol Glycosides from Industrial Stevia By-Product, Preparation and Practical Application of Stevia in Milk Tea

Xiao Hua, Jiangnan University, China

- ✓ **Recovery of steviol glycosides from mother liquor sugar**
- ✓ **Preparation of glucosyl stevioside from stevioside and its taste modification**
- ✓ **Practical application of stevia in milk tea beverage**



Branding Stevia Sustainability Through Commercial Viable

Lucy Dahlgren, founder & group CEO of THiS Less-is-more Group AB (Publ.), Sweden

- ✓ **Stevia commercial viability is low due to the barrier of regulations and labelling law.**
- ✓ **The competition nature like taste and health benefit with other ingredients restricts Stevia market entry.**
- ✓ **It is important to position Stevia as a brand, what buyers want to buy, not as product.**



Stevia in Food Product Development: Formulation and Evaluation

*Rajnibhas Sukeaw Samakradhamrongthai, Prince of
Songkla University, Thailand*

The product development containing fruit powder, stevia, and xylitol is used to create a **reduced-sugar product with bioactivities enhancement and increase the potential for consumption of **healthy confectionery** with a good perspective of acceptability in the consumer market.**

Stevia in Food Industry - Innovations & Technologies



Stevia from Field to the Table - Case of Greece

Christos Stamatis, CEO of Stevia Hellas Cooperative, Greece

Production of stevia in Greece, from seed to dry leaf, as well as the sustainability of this production.

Stevia Breeding & Cultivation - 2022



Stevia Breeding & Cultivation- 2022

*Buhara Yücesan, Bolu Abant Izzet Baysal University,
Turkey*

- ✓ **Strategies of breeding and cultivation considering sustainable agricultural practice**
- ✓ **Are farmers' preferences shifting towards plants with higher economic value? such as Cannabis production.**
- ✓ **Is Cannabis a real threat for stevia production ?**

Stevia Breeding & Cultivation - 2022



Breeding and Agricultural Supply Chain Expertise for a Fresh Look at Stevia Leaf Production and Processing

Gabriele Gusmini, Founder of the Plant Pathways Company, Inc., USA

- ✓ **Genetic discovery & breeding focus on driving the impact of stevia leaves in the extraction of ingredient, food & beverage formulation, and consumer experience.**
- ✓ **Key drivers of business development: positive consumer experience, healthy people and planet, and profitable rewarding supply chains.**



Optimum Experiment Size for Stevia Trials

Todd Wehner, North Carolina State University, USA

- ✓ **Optimum trials for stevia will give the most data for the least input of resources.**
- ✓ **The question can be answered by determining the optimum number of years, locations and replications to use in a yield trial.**



Recent Stevia Productivity Agronomic towards Development on attaining Higher

Probir Kumar Pal, CSIR - Institute of Himalayan Bioresource Technology, India

- ✓ **How to increase the leaf biomass and**
 - ✓ **steviol glycosides yield?**
- ✓ **How does the **nutrient management strategy** improve the salinity tolerance of stevia?**
- ✓ **What is the soil-water-nutrient-plant relationship?**

Stevia Awards





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Best Stevia Taste Award 2022

Congratulation to



greensugar®
dulce natural



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Wishing you a nice meeting

