

### **Ensuring Seed Quality By Uniformity in Seed Testing** Role of Seed Testing in the Future World



Keshavulu Kunusoth

the ISTA President

Feature a message from the ISTA President regarding the 100 years of ISTA.





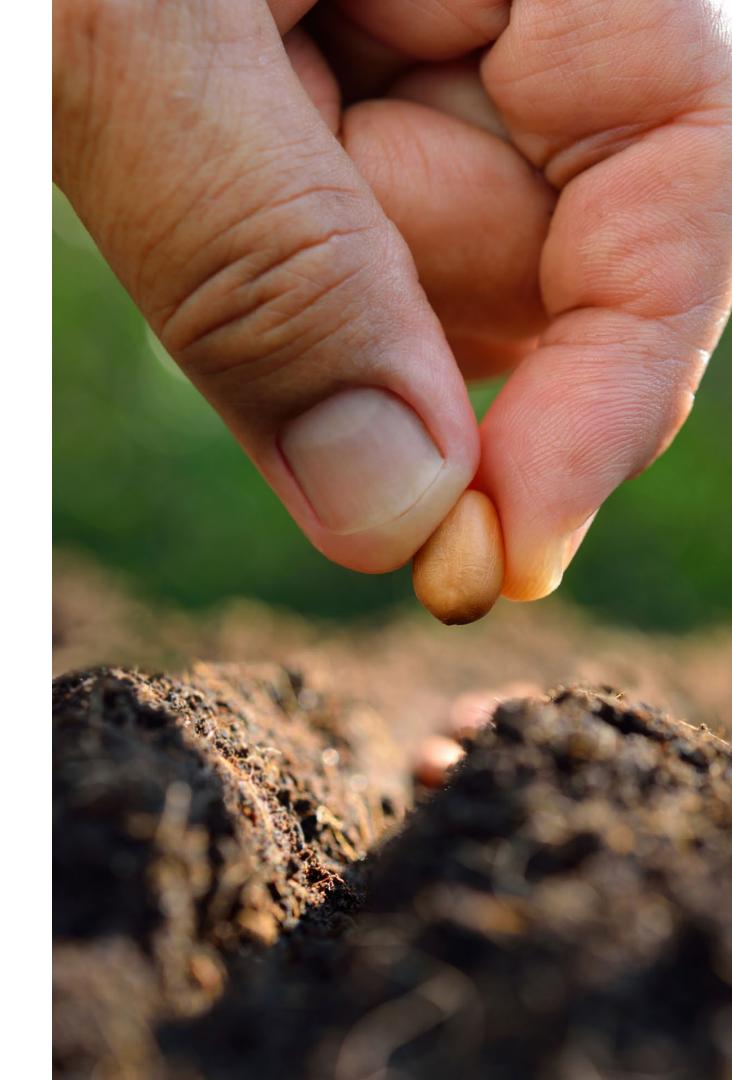
# Message from



### In Focus

The International Seed Testing Association (ISTA) is an international, non-profit association of seed testing laboratories and individual seed professionals.

ISTA operates under the governance of the governments of member countries and distinct economies.



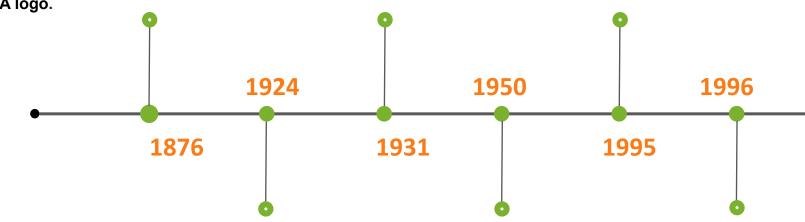


### **ISTA Facilitates seed trade since 1924**



At the request of FIS (ISF), ISTA adopted the first "International Rules of Seed Testing", as well as establishing the ISTA Certificates Scheme.

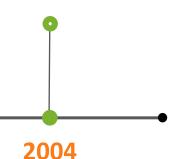
During the ISTA Congress held in Copenhagen, **ISTA Membership** was opened to private laboratories and private seed companies.



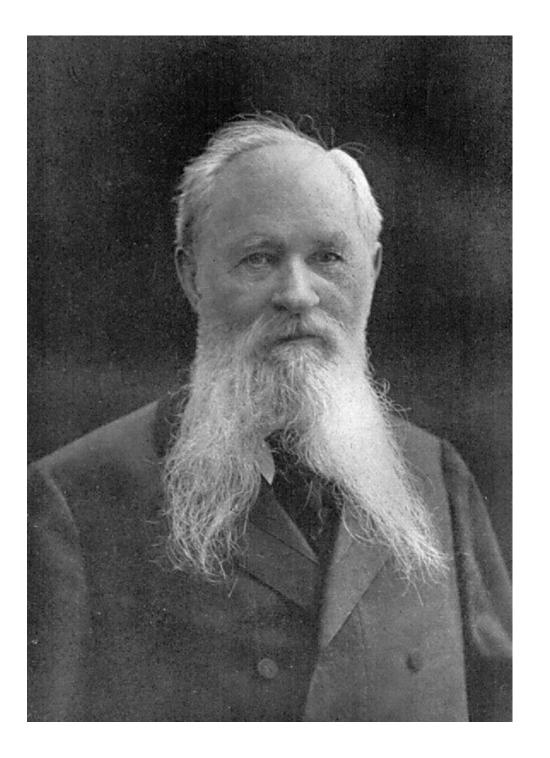
26 countries participated in the meeting held in Cambridge, and the International Seed Testing Association **was founded**. ISTA Congress was held in Washington D.C., the first outside Europe, and demonstrated that, after 13 years of interruption by World War II, **ISTA was indispensable** to seed business.

To ensure harmonized seed testing worldwide, ISTA initiated the **Quality Assurance Programme** to accredit seed testing laboratories. **The first ISTA member Laboratory** was audited under the new set-up in this year.

During the ISTA Congress held in Budapest, it was agreed to consider accreditation as a purely technical task, and the responsibility to give authorization to issue **ISTA International seed Analysis Certificates** was given to the ISTA Executive Committee.





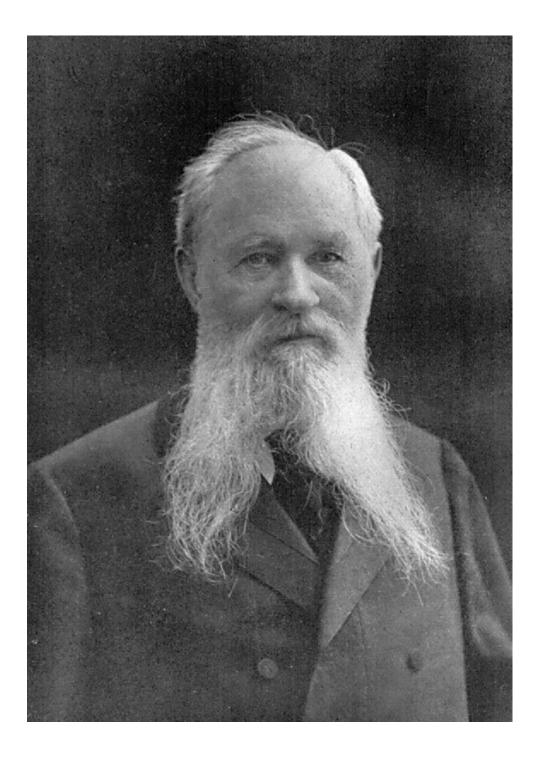


### Nobbe's Inquiries Over 150 **Years Ago**

- Is the seed sold to farmers of the desired botanical species?
- How many seeds are of the desired botanical species?
- What other botanical species can be found in the seed sold?
- Does the seed sold have the potential to produce a healthy plant?

https://www.youtube.com/watch?v=hK\_wNrJu09Q





### Nobbe's Requirements Over **150 Years Ago**

- Science-based laboratory Testing
- Sampling is critical

- Statistics is fundamental to Seed Testing

• Standardised Methods for all tests needed (Rules)

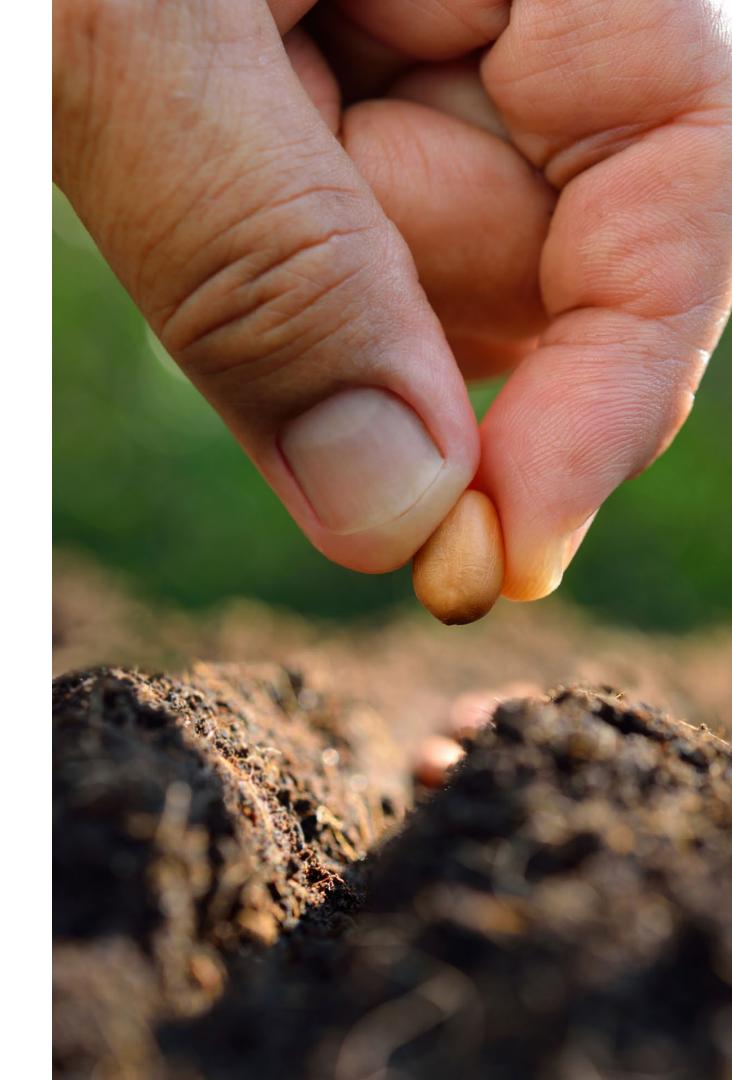
• All Tests completed before seed sold to end-user



# **ISTA Objectives**

Develop, adopt, and publish Standard Procedures for Sampling and testing seeds and promote uniform application of these procedures, for evaluation of seeds moving in international trade.

Promote Research in all areas of seed science and technology.





# **ISTA Membership**

### **Member Laboratory**

- Is a laboratory engaged in the testing of seed, which supports ISTA's objectives
- Participates in the Proficiency Testing Programme (mandatory for accredited Laboratories)
- Receives free online, multi-user access to the International Rules of Seed Testing
- Purchases ISTA publications at the member's reduced rate
- Member Laboratories have a free Personal Member
- Receives a free copy of newly published ISTA Handbooks upon release

All staff members receive priority booking at any ISTA Event. (Reduced registration fees for ISTA Congress, Annual Meeting, Symposia and Workshops)

### **Fees**

ISTA Laboratory Membership annual fee\*: 5 214 Swiss Francs (CHF)

Accreditation fee (applies for accredited laboratories only)\*: **1 224** Swiss Francs (CHF)

Audit fee (paid annually, for accredited laboratories only)\*: **4 330** Swiss Francs (CHF)

\*2024 minus 10% for early birds



# **ISTA Membership**

### **Personal Member**

• Is a person engaged in the science and practice of seed testing or its technical control, who supports ISTA's objectives

- Receives free online, multi-user access to the International Rules of Seed Testing
- Purchases ISTA publications at the member's reduced rate
- Receives a free copy of newly published ISTA Handbooks upon release
- Has priority at any ISTA Event. (Reduced registration fees for ISTA Congress, Annual Meeting, Symposia and Workshops)

### Fees

# ISTA Personal Membershipannual fee\*:**1 049** Swiss Francs (CHF)

\*2024 minus 10% for early birds



# **ISTA Membership**

### Associate Member

• Is a person engaged in the science and practice of seed testing or its technical control, who supports ISTA's objectives

- Purchases online, single-user access to the International Rules of Seed Testing and other ISTA Publications like ISTA Handbooks at the members reduced rate
- ISTA Events (Reduced registration fees for ISTA Congress, Annual Meeting, Symposia and Workshops)

### Fees

### ISTA Associatel Membership annual fee\*: 214 Swiss Francs (CHF)

\*2024 minus 10% for early birds



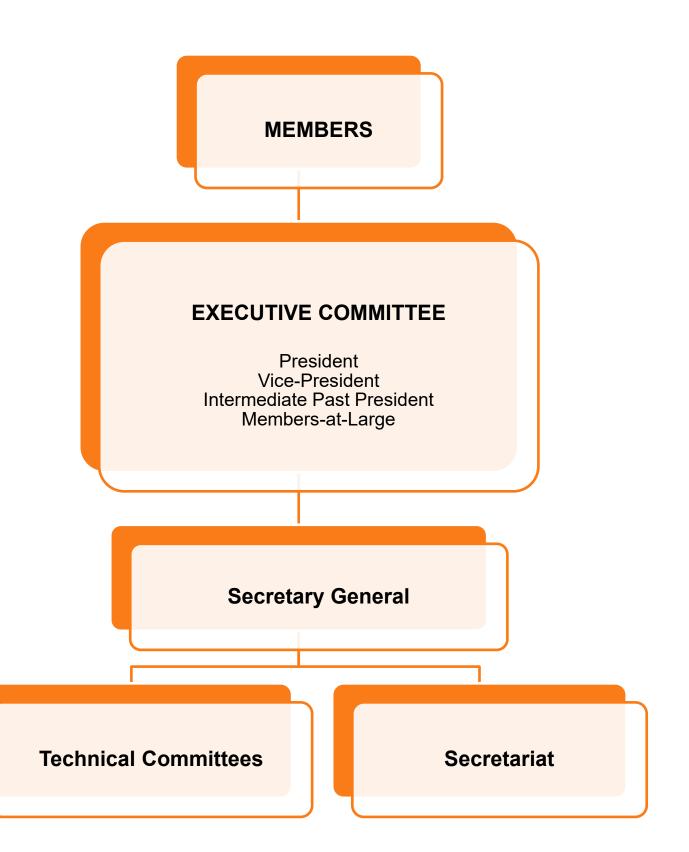
### **ISTA Structure**

**Government Governance** 

Personal Members may become Designated Members (and Voting Members), if nominated by their Designated Authorities

Designated Members have passive (and if Voting Members also active) voting rights during ISTA ordinary Meetings

This means that finally the Designated Authorities (Government Representatives) vote on Article, Rules, Membership Fees, Accreditation, the Executive Committee Members etc. of the Association







#### **KESHAVULU KUNUSOTH**

President India

# ISTA Executive Committee





**IGNACIO ARANCIAGA** Argentina



**BERTA KILLERMANN** Germany





#### **ERNEST ALLEN**

Vice - President United States



#### **STEVE JONES**

Immediate Past President Canada

#### **MEMBERS AT LARGE**

SERGIO PASQUINI Italy



SYLVIE DUCOURNAU France



**RUEL GASMUNDO** Philippines



**CLAID MUJAJU** 

Zimbabwe



**CRAIG MCGILL** New Zealand



**VANESSA SOSA** Uruguay

### **ISTA Secretariat**



**ANDREAS WAIS** Secretary General



**FLORINA PALADA** Head of Accreditation & **Technical Department** 



**AGNES HEGEDUES** Finance, Sales & HR Management



**ANDREEA PINAR TCOM Administrator** 



**BRANISLAVA OPRA** System Auditor, Quality Management & Standard PT Coordinator



**NADINE ETTEL TCOM Manager** 



**NEELAM OEK** 

Audit. Accreditation & PT Administrator On Maternity Leave



**OLGA STOECKLI** 

Events, Membership & Documentation Manager



**SEJAL PATEL** 





**STELLA MARCU** 

System Auditor & PT Administrator





#### **BEATA HÜBNEROVA** Administration Assistant



#### **KAREN DE LA ROSA**

Marketing & Communications Assistant



**YOANA UZUNOVA** 

Marketing and Communications Manager

# **ISTA TCOM Chairs**



BERT VAN DUIJN Advanced Technologies Committee



CORINNE GUIMIER Bulking and Sampling Committee



FIONA R. HAY Editorial Board of Seed Science and Technology



SARAH DAMMEN Flower Seed Testing Committee



ELISA VIEIRA Forest Tree and Shurb Seed Committee



ENRICO NOLI GMO Committee



GILLIAN MUSGROVE Germination Committee



RUOJING WANG Purity Committee



ERNEST ALLEN Rules Committee



RUUD BARNHOORN Seed Health Committee



BRIGITTE HAMMAN Seed Science Advisory Group



JAYANTHI NADARAJAN Seed Storage Committee



KIRK REMUND Statistics Committee

SERGIO PASQUINI Tetrazolium Committee





AXEL GOERITZ Moisture Committee



MELANIE SCHORI Nomenclature Committee



DIDIER DEMILLY Proficiency Test Committee





ANA LAURA VICARIO Variety Committee



ALISON A. POWELL Vigour Committee



GIL WAIBEL Wild Species Working Group

# **20 Technical Committees**

- Advanced Technologies Committee
- Bulking and Sampling Committee
- Flower Seed Testing Committee
- Forest Tree and Schrub Seed Committee
- Germination Committee
- GMO Committee
- Moisture Committee
- Nomenclature Committee
- Proficiency Test Committee
- Purity Committee

- Rules Committee
- Seed Health Committee
- Statistics Committee
- Seed Storage Committee
- Tetrazolium Committee
- Variety Committee
- Vigour Committee
- Editorial Board (SST)
- Seed Science Advisory Group
- Wild Species Working Group





#### **About 270 TECHNOLOGISTS AND** SCIENTISTS **AROUND THE GLOBE**

#### **Over 50** SEED PROFESSIONALS RECEIVE **TRAINING YEARLY IN ISTA WORKSHOPS**

Discover more: Technical Committees



### **ISTA Pillars**

International Standardisation of Reporting Results



International Standardisation of Methodologies

### Dissemination of Knowledge



International Standardisation of Laboratory results



### **ISTA Publications**

#### The International Rules for Seed Testing are published in 4 languages:

- English French
- English Spanish
- English German

#### **ISTA Handbooks**

The subject-focused handbooks give valuable background information to seed testing procedures.

#### **Seed Testing International (STI)**

ISTA bi-annual news bulletin published as hard copy and online.

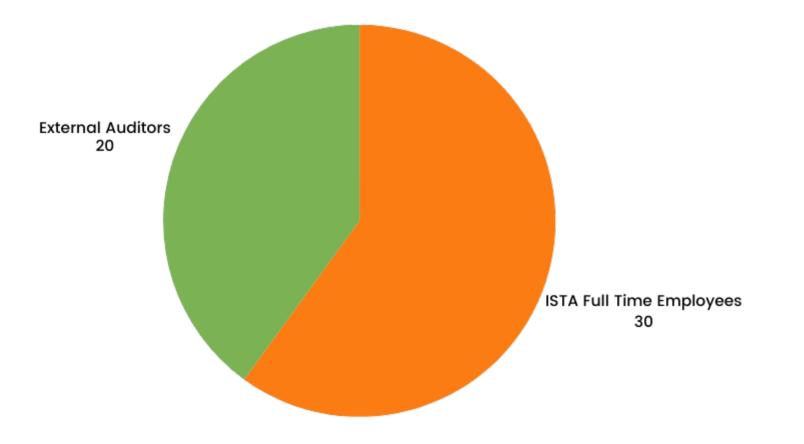
#### Seed Science and Technology (SST)

Seed Science and Technology (SST) is an international journal featuring original papers and articles on seed quality and physiology related to seed production, harvest, processing, sampling, storage, genetic conservation, habitat regeneration, distribution and testing.



### Accreditation

About 50 ISTA Audits each year



1996

Every ISTA Accredited Laboratories are audited **3 years** in order to obtain re-accreditation

\*The term seed testing laboratory also counts for sampling entities.

### More than 150 **ISTA Accredited** Laboratories Worldwide

The Quality Assurance Programme was first introduced to accredit seed testing laboratories\*



# ISTA Proficiency Tests

ISTA offers the following PTs:

Standard PT:	3 per year
GMO PT:	1 per year
Seed Health PT:	1 per year
New: DNA PT:	1 per year

### **Standard Proficiency Test Programme Plan 2023-2025**

Round	Species	Test round scope	Crop group	Crop group
РТ23-1	Vicia sativa	PUR, OSD, GER	4	Pulses
РТ23-2	Raphanus sativus	PUR, OSD, GER, MOI, VIG (conductivity test), OIC	5 (and 6)*	Other agricultural crops and vegetable
PT23-3	Trifolium hybridum	PUR, OSD, GER, TSW	3	Small legumes
PT24-1	Triticum aestivum subsp. aestivum	PUR, OSD, GER, MOI, TZ, VIG (radicle emergence), TSW, OIC	2	Cereals
PT24-2	Alcea rosea	GER	8	Flowers
PT24-2	Arachis hypogaea	GER	4	Pulses
РТ24-3	Bromus inermis	PUR, OSD, GER, TZ	1	Grasses
PT24-3	Coriandrum sativum	GER	6	Vegetables
PT25-1	Beta vulgaris ** (pelleted seeds)	GER	5	Other agricultural crops
PT25-1	Lactuca sativa	PUR, OSD, GER	6	Vegetables
PT25-2	Oryza sativa	PUR, OSD, GER, TZ, TSW OIC	2	Cereals
PT25-3	Pinus sylvestris	GER, MOI, TZ	7	Forests
PT25-3	Chenopodium quinoa	GER	5 (and 6)*	Other agricultural crops and vegetables

\* Laboratories accredited for each crop group will be considered as obligatory participants

\*\* Round on Beta vulgaris is to be confirmed; laboratories ISTA accredited both for crop group 5 and coated seed are considered as obligatory participants (accreditation for the crop group 5 only without accreditation for coated seed will for this round be considered as voluntary participation)



### **ISTA Certificates**

OrangeFor Seed Lots (Including ISTA Sampling)BlueFor Seed Samples and Mixtures

About 200,000 Certificates issued globally every year.

A glance to the near future: ISTA Certificates going electronic! International Seed Testing Association

### PASSPORT TO SEED QUALITY



#### ISTA ACCREDITATION PROGRAMME



# **Highlights and Special Projects**

#### **ISTA Social Media:**

LinkedIn: (> 11,121 followers) (> 2,491 followers) X: YouTube: (> 1,410 subscribers)

#### **ISTA Pest List:**

23 Crops (Pest List V9)

#### World Seed Partnership: www.worldseedpartnership.org

#### Young@ISTA: LinkedIn Group: Support to Young Seed Professionals 440 Members





### International Partners



























International Rice Research Institute



# ISTA 100 YEARS

A CENTURY OF PROGRESS IN SEED QUALITY ASSURANCE







### **THANK YOU!**

www.seedtest.org



Scan and follow us on our social media