Ensuring Seed Quality By Uniformity in Seed Testing

Role of Seed Testing in the Future World
Message from the ISTA President

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

Friederich Nobbe published his famous Handbook of Seed Science and the Motto of the meeting held in Hamburg that year was “uniformity in seed testing”, later becoming the ISTA logo.

1876

1924

1931

1950

1995

1996

2004

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

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.

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

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.

During the ISTA Congress 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.

26 countries participated in the meeting held in Cambridge, and the International Seed Testing Association was founded.
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
- Standardised Methods for all tests needed (Rules)
- All Tests completed before seed sold to end-user
- Statistics is fundamental to Seed Testing
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)

*The term Member Laboratory also counts for Sampling Entities

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 Membership annual 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 Associate 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.
ISTA
Executive Committee

KESHAVALU KUNUSOTH
President
India

ERNEST ALLEN
Vice - President
United States

STEVE JONES
Immediate Past President
Canada

MEMBERS AT LARGE

IGNACIO ARANCIAGA
Argentina

SERGIO PASQUINI
Italy

SYLVIE DUCOURNAU
France

RUEL GASMUNDO
Philippines

BERTA KILLERMANN
Germany

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

BEATA HÜBNERova
Administration Assistant

KAREN DE LA ROSA
Marketing & Communications Assistant

NADINE ETTEL
TCOM Manager

NEELAM OEK
Audit, Accreditation & PT Administrator On Maternity Leave

OLGA STOECKLI
Events, Membership & Documentation Manager

SEJAL PATEL
IT Business Solutions Manager

STELLA MARCU
System Auditor & PT Administrator

YOANA UZUNOVA
Marketing and Communications Manager
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
- Dissemination of Knowledge
- International Standardisation of Methodologies
- 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

ISTA Full Time Employees 30

External Auditors 20

More than 150 ISTA Accredited Laboratories Worldwide

1996
The Quality Assurance Programme was first introduced to accredit seed testing laboratories*

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

*The term seed testing laboratory also counts for sampling entities.
ISTA Proficiency Tests

ISTA offers the following PTs:

<table>
<thead>
<tr>
<th>Standard PT:</th>
<th>3 per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMO PT:</td>
<td>1 per year</td>
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<tr>
<td>Seed Health PT:</td>
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- **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

<table>
<thead>
<tr>
<th>Round</th>
<th>Species</th>
<th>Test round scope</th>
<th>Crop group</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT23-1</td>
<td>Vicia sativa</td>
<td>PUR, OSD, GER</td>
<td>4</td>
</tr>
<tr>
<td>PT23-2</td>
<td>Raphanus sativus</td>
<td>PUR, OSD, GER, MOI, VIG (conductivity test), OIC</td>
<td>5 (and 6)*</td>
</tr>
<tr>
<td>PT23-3</td>
<td>Triticum hybridum</td>
<td>PUR, OSD, GER, TSW</td>
<td>3</td>
</tr>
<tr>
<td>PT24-1</td>
<td>Triticum aestivum subsp. aestivum</td>
<td>PUR, OSD, GER, MOI, TZ, VIG (radicle emergence), TSW, OIC</td>
<td>2</td>
</tr>
<tr>
<td>PT24-2</td>
<td>Alcea rosea</td>
<td>GER</td>
<td>8</td>
</tr>
<tr>
<td>PT24-3</td>
<td>Arachis hypogaea</td>
<td>GER</td>
<td>4</td>
</tr>
<tr>
<td>PT24-4</td>
<td>Bromus inermis</td>
<td>PUR, OSD, GER, TZ</td>
<td>1</td>
</tr>
<tr>
<td>PT24-5</td>
<td>Coriandrum sativum</td>
<td>GER</td>
<td>6</td>
</tr>
<tr>
<td>PT25-1</td>
<td>Beta vulgaris ** (pelleted seeds)</td>
<td>GER</td>
<td>5</td>
</tr>
<tr>
<td>PT25-2</td>
<td>Lactuca sativa</td>
<td>PUR, OSD, GER</td>
<td>6</td>
</tr>
<tr>
<td>PT25-3</td>
<td>Oryza sativa</td>
<td>PUR, OSD, GER, TZ, TSW OIC</td>
<td>2</td>
</tr>
<tr>
<td>PT25-4</td>
<td>Pinus sylvestris</td>
<td>GER, MOI, TZ</td>
<td>7</td>
</tr>
<tr>
<td>PT25-5</td>
<td>Chenopodium quinoa</td>
<td>GER</td>
<td>5 (and 6)*</td>
</tr>
</tbody>
</table>

* 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

Orange  For Seed Lots (Including ISTA Sampling)
Blue    For Seed Samples and Mixtures

About 200,000 Certificates issued globally every year.

A glance to the near future:
ISTA Certificates going electronic!
Highlights and Special Projects

ISTA Social Media:
LinkedIn: (> 11,121 followers)
X: (> 2,491 followers)
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
THANK YOU!

www.seedtest.org