



D-8 5TH AGRICULTURAL MINISTERIAL MEETING ON FOOD SECURITY

01-03 December 2014
ISTANBUL

Havva AYDOĞMUŞ

**MINISTRY OF FOOD, AGRICULTURE AND LIVESTOCK
Variety Registration and Seed Certification Center-Ankara**





VARIETY REGISTRATION AND SEED CERTIFICATION CENTER ANKARA (VRSCC)



SEED CERTIFICATION SYSTEM IN TÜRKİYE

Historical Background of Seed System

- **1953** - seed testing started,
- **1959** - The seed control and certification institution was established,
- **1963**- The seed law related variety registration, seed certification, seed trade and market control was put into force,
- **1963**- Turkey was became a member of ISTA ,
- **1968**- Turkey was included into the OECD Seed Certification System for some plant species in 1968 and following years,

This plant groups are; Beet, Maize and Sorghum ,Cereals ,Oil seed and fibre plants ,Grasses and fodder plants and Vegetable



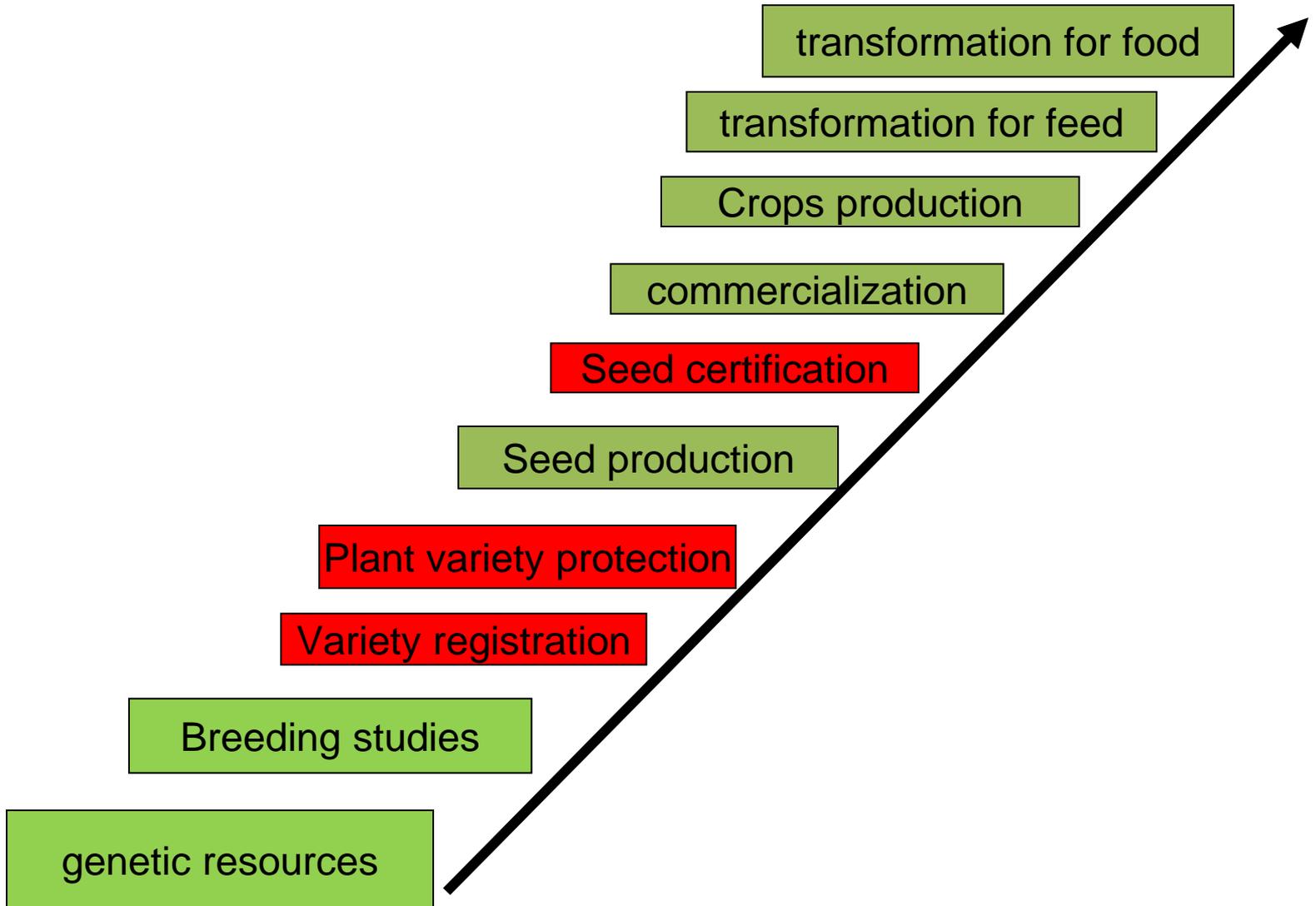


SEED CERTIFICATION SYSTEM IN TÜRKİYE

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- 1982 Liberation of Seed prices,
 - 1984 Liberation of Seed import,
 - 1985 Governmental decree on Seed Sector incentives for investment,
 - 2001 TTSM lab .was accredited by ISTA (ISO/IEC 17025 lab. standard and ISO Guide 25 - 124 plant species)
 - 2004 Law No. 5042:Protection of Breeder's Rights for New Plant Varieties,
 - 2006 Seed Law (5553)
Covers the subjects related to variety registration , seed production, certification,trade and market control ,
 - 2007 UPOV membership (18 November 2007)
 - 2010 Law No. 5996:Plant protection and quarantine ,
Structure of Turkish seed sector has been mainly changed from public institutions to private sector



SEED CERTIFICATION SYSTEM IN TÜRKİYE





SEED CERTIFICATION SYSTEM IN TÜRKİYE



PLANT GROUPS

Field Crops

Vegetable Seeds

Vegetable Seedling

Young plant, (Fruit, vine and including strawberry)



SEED CERTIFICATION SYSTEM IN TÜRKİYE



SEED CERTIFICATION

1. General Conditions,
2. Giving a declaration,
3. Field inspection,
4. Labeling,
5. Sampling,
6. Seed Quality Testing,
7. Post Control Test,
8. Marketing Control,



SEED CERTIFICATION SYSTEM IN TÜRKİYE



1. General Conditions

Variety must be registered,

Seeds are produced and marketed by legal or real persons authorized by the ministry,

Pre-basic and basic seed production and marketing is done by the breeder, the variety owner or research institutions authorized by them,

It is essential to certify the seeds within the growing cycle.

Growing season: starts on 1st of July until 30th of June of the following year.





2. Declaration Submission

- Dates for submitting a declaration are defined by the relevant regulations prepared on the basis of plant species.
- For the certification of seeds the declaration is given to provincial directorate where the seed production is done.
- Demanded information and documents;
- True copy of certificate,
- Varietal and parental description of variety,
- Field plan,





3. Field Inspection

- field inspectors follow regulation (No.of 2010/27666) and related rules,
- **Field inspection** ;
 - variety identity,
 - varietal purity,
 - previous crop,
 - isolation distance demands and regarding the diseases according to rules defined by the regulations are done by the authorized inspectors in VRSCC, regional certification institutions and agricultural provincial directorates (plant production and plant protection branches).





SEED CERTIFICATION SYSTEM IN TÜRKİYE



- Field control of seeds produced within the OECD seed certification and which are subject to exportation are done by the VRSCC or by the authorized inspectors.
- Controls are done according to standards and methods defined by the ministry on the crop species subject to marketing .
- Field inspection report (FIR) is prepared for every production parcel if its declaration is accepted after the field inspection.



4. Sampling

- Samples are taken by authorized inspectors according to ISTA rules.
- Sampling methods, lot size, min. Sample weight, are defined on the basis of species by the ministry.
- Samples are submitted to related certification institutions with suitably sealed packages for seed quality tests.





5. Seed Quality Testing

- **Seed tests;** Done by the VRSCC, Regional Seed Certification Labs (6 institutions) and the authorized companies by the Ministry (15 seed firms seed lab.).
- Lab. analyses are conducted according to ISTA rules.
- Standards of the seeds which are subject to marketing and which are within the listed species are defined by the Ministry.





SEED CERTIFICATION SYSTEM IN TÜRKİYE

➤ **Physical analysis** (inert matter, other variety and crops seeds, noxious and weed seeds, etc.) and seed germination tests are obligatory for certification.

➤ Seed samples, lab. analyses results, certifications are prepared according to appropriate seed category.

➤ Proficiency tests are conducted by the VRSCC, three times a year on different species and different topics for the institutions authorized by the Ministry.





6. Labeling

- Regulations on labeling and label types are done by the regulations on plant groups,
- Labels are provided by the authorized institutions by VRSCC and TÜRK-TOB (Turkish Seed Union)
- Label information and label size depend on seed category,
- For the traceability a unique serial code is given to each label.





SEED CERTIFICATION SYSTEM IN TÜRKİYE

Label colors and their categories are regulated by the regulation on EU rules:

Pre-basic seed

White label with diagonal purple stripe

Basic Seed

White

Cert.Seed 1st Gen.

Blue

Cert.Seed 2nd Gen.

Red

Not finally certified seed

Grey





7. Post Control Tests

- These tests are done by VRSCC. With these trials, samples taken from the seed lots are tested in terms of their conformity with the standards regarding the varietal purity and identity
- On Certified seed lots; Post control tests are applied 100 % of basic seeds and 10 % of certified seeds,
- The results of post control tests are evaluated by VRSCC and the results/reports are being sent to related seed producers.





8. Marketing Control

- Market control is done by the Ministry of agriculture - Provincial directorates – Plant production and Protection section.
- Penalties are defined by various laws.
- Randomly taken samples during the market controls are sending to VRSCC and regional seed certification laboratories for testing seed quality standards.



The International Seed Testing Association

ISTA





ISTA RULES IN SEED CERTIFICATION



ISTA

An international, non-profit association of seed testing laboratories and individual seed professionals, ISTA operates under the governance of the government of member countries and distinct economies





ISTA RULES IN SEED CERTIFICATION

127 of the ISTA Member Laboratories are accredited by ISTA and entitled to issue ISTA International Seed Analysis Certificates.

Association of Seed Testing Laboratories

	2006	2013
Member Laboratories	174	210
Accredited labs	102	127

From 75 countries (67 voting)





ISTA RULES IN SEED CERTIFICATION



Ordinary Meeting

Voting delegates from Member Governments

Executive Committee

11 Members from all Continents of the World nominated by Governments

Secretariat

11 professional employees

18 Technical Committees and Boards

Over 200 experts from all over the world working voluntarily in the Technical Committees

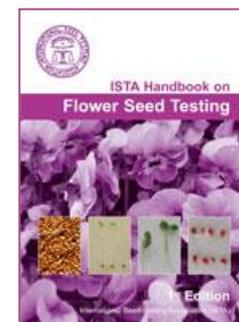
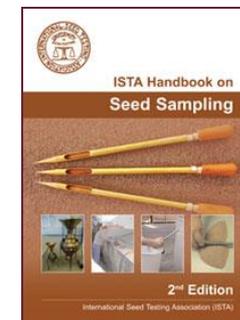
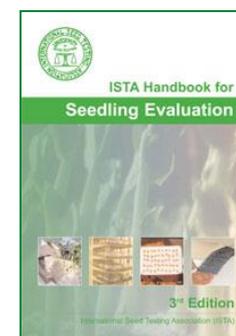
Experts are coming from the public and the private sector, from member laboratories and non-member laboratories



ISTA RULES IN SEED CERTIFICATION

ISTA Technical Committees:

- ADVANCED TECHNOLOGIES COMMITTEE
- BULKING AND SAMPLING COMMITTEE
- FLOWER SEED COMMITTEE
- FOREST TREE AND SHRUB 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)



What is the International Seed Testing Association doing ?

ISTA is working to achieve Reproducibility in Seed Quality Determination on a worldwide basis.

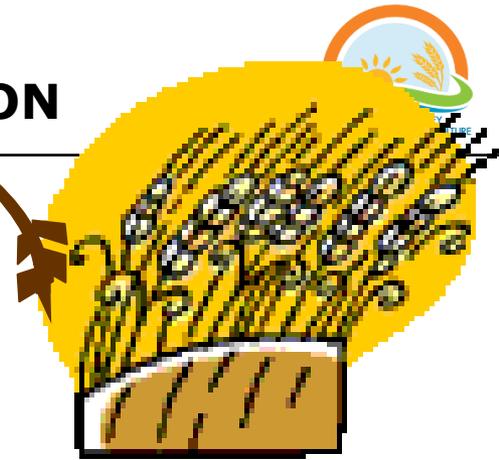




ISTA RULES IN SEED CERTIFICATION

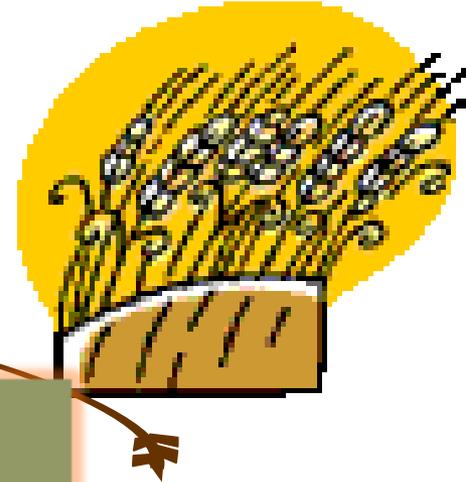
Following the Articles of the ISTA
the **Objectives of the Association** are:

(a) The primary purpose of the Association is to **develop, adopt and publish standard procedures for sampling and testing seeds, and to promote uniform application of these procedures** for evaluation of seeds moving in international trade.





ISTA RULES IN SEED CERTIFICATION



(b) The secondary purposes of the Association are actively **to promote research in all areas of seed science and technology**, including sampling, testing, storing, processing, and distributing seeds, to encourage variety (cultivar) certification, to participate in conferences and training courses aimed at furthering these objectives...



ISTA RULES IN SEED CERTIFICATION



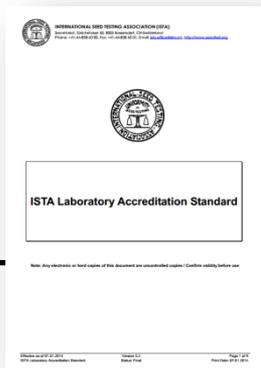
International
Standardization of
Reporting Results



International
exchange of
scientific
results



International
Standardization
of Methodologies



International
Standardization of
laboratory
performance





ISTA RULES IN SEED CERTIFICATION

Since 1933 ISTA is publishing international Rules for seed testing

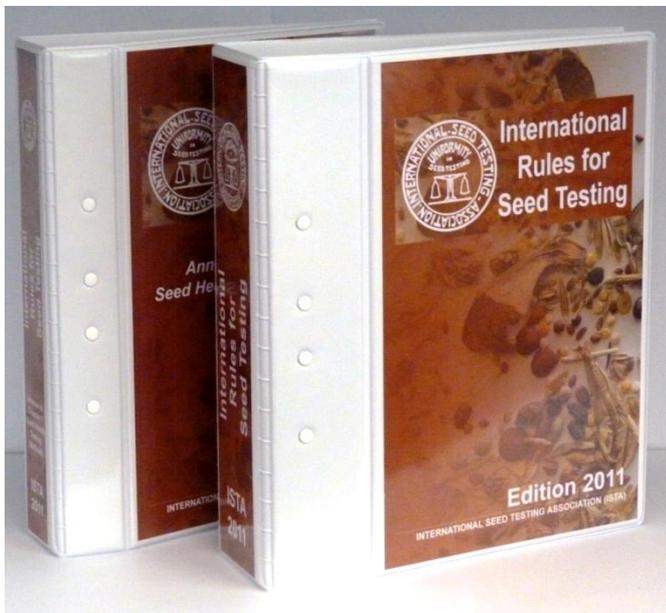


Table 2A Part 1 Agricultural and vegetable seeds

Species	Maximum weight of lot	Minimum sample weights		
		Submitted sample	Working sample for purity analysis	Working sample for count of other species
	Chapter 2 (kg)	Chapter 2 (g)	Chapter 3 (g)	Chapter 4 (g)
<i>Abelmoschus esculentus</i> (L.) Moench	20 000	1 000	140	1 000
<i>Achillea millefolium</i> L.	10 000	25	0.5	5
<i>Aeschynomene americana</i> L.	10 000	120	12	120
<i>Agropyron cristatum</i> (L.) Gaertn.	10 000	40	4	40
<i>Agropyron desertorum</i> (Fisch. ex Link) Schult.	10 000	60	6	60
<i>Agrostis canina</i> L.	10 000	25	0.25	2.5
<i>Agrostis capillaris</i> L.	10 000	25	0.25	2.5
<i>Agrostis gigantea</i> Roth	10 000	25	0.25	2.5
<i>Agrostis stolonifera</i> L. (includes <i>A. palustris</i> Hudson)	10 000	25	0.25	2.5
<i>Allium cepa</i> L.	10 000	80	8	80
<i>Allium fistulosum</i> L.	10 000	50	5	50
<i>Allium porrum</i> L.	10 000	70	7	70
<i>Allium schoenoprasum</i> L.	10 000	30	3	30



ISTA RULES IN SEED CERTIFICATION

International Standardization of Laboratory Performance

To achieve reproducibility of seed quality determination, the standardization of the laboratory performance is highly important, through:

1. The continuous monitoring of the performance of the laboratories through proficiency tests.
2. The development of a quality assurance system according to one international standard within the laboratory.
3. The regular auditing of the laboratories through an independent body.
4. The further training and education of seed analysts in international training and education workshops.

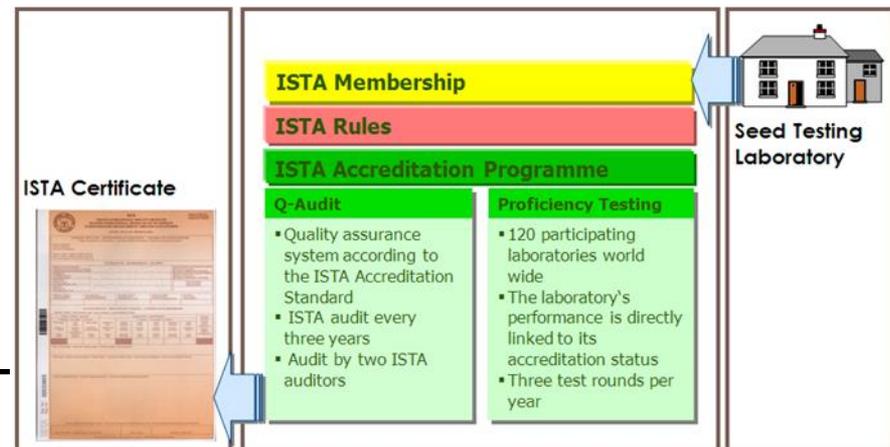




ISTA RULES IN SEED CERTIFICATION

The ISTA Accreditation Programme

- Is open for Seed Testing Laboratories from the public and the private sector.
- The official language is English.
- All relevant documents can be downloaded from the ISTA website at www.seedtest.org



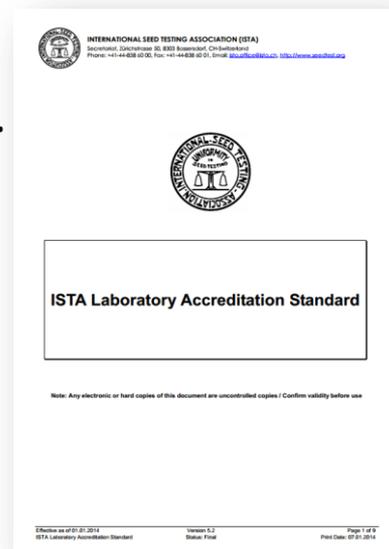
ISTA RULES IN SEED CERTIFICATION

Monitoring of laboratory performance:

The ISTA Audit Programme

- Small audit team guarantees uniformity of the audit process worldwide.
- Outstanding experience of ISTA technical auditors guarantees the high quality level of ISTA audits.
- ISTA Accreditation is globally accepted and used worldwide.

The Standard can be downloaded free of charge from the ISTA webpage www.seedtest.org

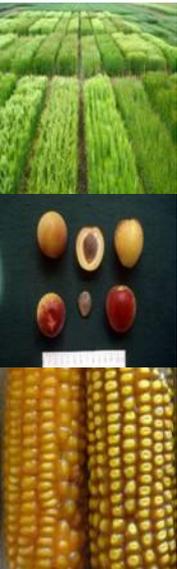




ISTA RULES IN SEED CERTIFICATION

Only ISTA accredited laboratories are entitled to issue ISTA Certificates

- ISTA Certificates can be issued by private and public laboratories.
- ISTA Certificates are accepted by all countries in the world.
- ISTA Certificates are mandatory for seed imports in a growing number of countries.





ISTA RULES IN SEED CERTIFICATION



Facilitation of International Seed Trade – The ISTA Certificates



ISTA
ORANGE INTERNATIONAL SEED LOT CERTIFICATE
BULLETIN INTERNATIONAL ORANGE DE LOT DE SEMENCES
INTERNATIONALER ORANGE-BERICHT ÜBER EINE SAATGUTPARTIE
(See back - Voir au verso - Rückseite beachten)

Stamp of Laboratory
Cachet du Laboratoire
Stempel der Prüfstelle

STATED BY APPLICANT – INFORMATIONS DU REQUÉRANT – ANGABEN DES ANTRAGSTELLERS
Without responsibility of the laboratory – Sans responsabilité du laboratoire – Ohne Verantwortung der Prüfstelle

Name of applicant
Nom du requérant
Name des Antragstellers

Species, cultivar, category, weight of lot etc.
Espèce, cultivar, catégorie, poids du lot, etc.
Art, Sorte, Kategorie, Gewicht der Partie usw.

INFORMATION – INFORMATIONS – ANGABEN

Testing and issuing laboratory
Laboratoire d'essai qui délivre le bulletin
Untersuchungs- und bescheinigende Prüfstelle

Sampling by
Échantillonnage par
Probationahme durch

Name of lot
Nom du lot
Name der Partie

Number of containers
Nombre de contenants
Anzahl der Behälter

Date of sampling
Date de prélèvement
Datum der Probenahme

Date sample received
Date échantillon reçu
Datum des Probensammelns

Lot number
No de l'échantillon
Lotnummer

ANALYSIS RESULTS – RÉSULTATS DE L'ANALYSE – UNTERSUCHUNGSERGEBNISSE

SPECIES - ESPÈCE - ART (scientific name - Nom scientifique - wissenschaftlicher Name)

PURITY - PURITÉ - REINHHEIT			GERMINATION - KEIMFÄHIGKEIT							MOISTURE OF MATTER - TENEUR EN HUMIDITÉ
% Weight - % en poids - % Gewicht	% Number - % en nombre - % Anzahl		% Number - % en nombre - % Anzahl	% Abscortal			% Abscortal		% Moisture - % humidité - % Feuchte	
Pure seeds - Semences pures - Reine Samen	Inert matter - Matière inerte - Inertes	Other seeds - Semences d'autres plantes - Samen anderer Pflanzen	Number of days - Nombre de jours - Anzahl Tage	Normal seedlings - Semences normales - Normale Keimlinge	Hard seeds - Graines dures - Harte Samen	Fresh seeds - Graines fraîches - Frische Samen	Abnormal seedlings - Semences anormales - Anormale Keimlinge	Other seeds - Semences d'autres plantes - Samen anderer Pflanzen	Standard deviation - Écart type - Standardabweichung	

Kind of inert matter - Nature des matières inertes - Art der unedl. Verunreinigungen

Other seeds - Semences d'autres plantes - Andere Samen / Species (scientific names) - Espèces (noms scientifiques) - Arten (wissenschaftliche Namen)

OTHER DETERMINATIONS – AUTRES DÉTERMINATIONS – WEITERE UNTERSUCHUNGSERGEBNISSE

(See also additional observations on back - Voir aussi observations complémentaires au verso - Siehe zusätzliche Bemerkungen auf der Rückseite)

Place and country - Localité et pays - Ort und Staat

Date - Dateum

Signature - Unterschrift

Reg. No. 00708700
Reg.-Nr.

ISTA
BLUE INTERNATIONAL SEED SAMPLE CERTIFICATE
BULLETIN INTERNATIONAL BLEU D'ÉCHANTILLON DE SEMENCES
INTERNATIONALER BLEU-BERICHT ÜBER EINE SAATGUTPROBE
(See back - Voir au verso - Rückseite beachten)

Stamp of Laboratory
Cachet du Laboratoire
Stempel der Prüfstelle

STATED BY APPLICANT – INFORMATIONS DU REQUÉRANT – ANGABEN DES ANTRAGSTELLERS
Without responsibility of the laboratory – Sans responsabilité du laboratoire – Ohne Verantwortung der Prüfstelle

Name of applicant
Nom du requérant
Name des Antragstellers

Species, cultivar, category, weight of lot etc.
Espèce, cultivar, catégorie, poids du lot, etc.
Art, Sorte, Kategorie, Gewicht der Partie usw.

INFORMATION – INFORMATIONS – ANGABEN

Testing laboratory
Laboratoire qui délivre le bulletin
Bescheinigende Prüfstelle

Name of lot
Nom du lot
Name der Partie

Number of containers
Nombre d'échantillons
Anzahl Behälter

Date of sampling
Date de prélèvement
Datum der Probenahme

Date sample received
Date échantillon reçu
Datum des Probensammelns

Lot number
No de l'échantillon
Lotnummer

ANALYSIS RESULTS – RÉSULTATS DE L'ANALYSE – UNTERSUCHUNGSERGEBNISSE

SPECIES - ESPÈCE - ART (scientific name - Nom scientifique - wissenschaftlicher Name)

PURITY - PURITÉ - REINHHEIT			GERMINATION - KEIMFÄHIGKEIT							MOISTURE OF MATTER - TENEUR EN HUMIDITÉ
% Weight - % en poids - % Gewicht	% Number - % en nombre - % Anzahl		% Number - % en nombre - % Anzahl	% Abscortal			% Abscortal		% Moisture - % humidité - % Feuchte	
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OTHER DETERMINATIONS – AUTRES DÉTERMINATIONS – WEITERE UNTERSUCHUNGSERGEBNISSE

(See also additional observations on back - Voir aussi observations complémentaires au verso - Siehe zusätzliche Bemerkungen auf der Rückseite)

Place and country - Localité et pays - Ort und Staat

Date - Dateum

Signature - Unterschrift

Reg. No. 00635700
Reg.-Nr.

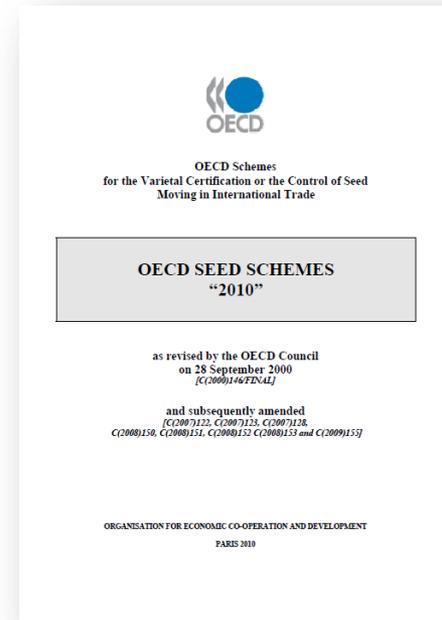
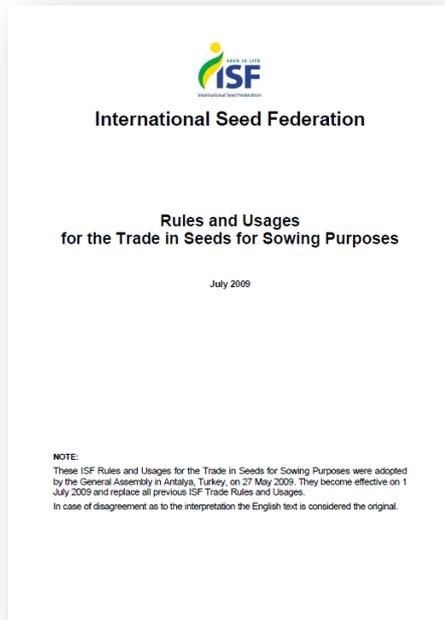


ISTA RULES IN SEED CERTIFICATION

Issuance of ISTA Certificates



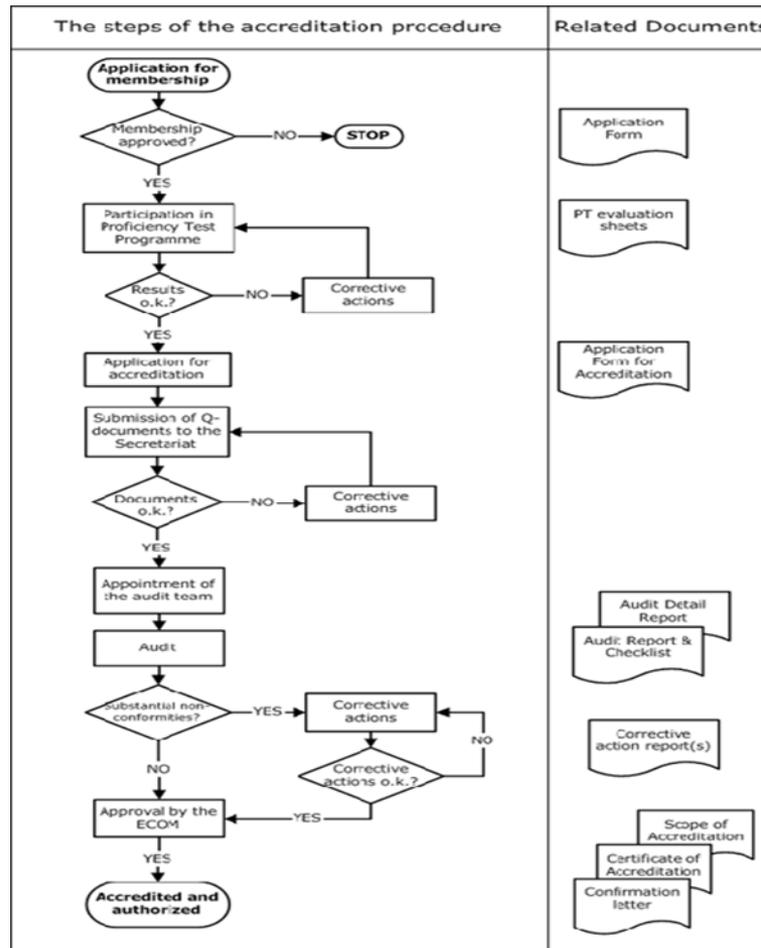
- ISTA Certificates are recommended under the ISF trade rules.
- ISTA Certificates are recommended under the OECD Seed Schemes.





ISTA RULES IN SEED CERTIFICATION

ISTA Accreditation Procedure





ISTA RULES IN SEED CERTIFICATION



VRSCC lab was accredited by ISTA accreditation standard for 121 plant species **by Grant/Confirm Accreditation Re-Accreditation Audit (3 years)**



2004- Second audit (Ista Accreditation OK)



2007- Third audit (Ista Accreditation OK)



2010- Fourth audit (Ista Accreditation OK)



2013-Fifth audit (Ista Accreditation OK)



Why did we need ISTA accreditation ?



ISTA RULES IN SEED CERTIFICATION

for the seed seller? Why seed traders needs ISTA accreditation ?

- ▶ Seed producers who want to have their seed tested have to be sure that the results produced are reliable and reflect the true quality of the seed to be sold. These results are influenced by many factors, such as competence of analysts, use of appropriate equipment, use of validated methods, accurate recording and reporting, etc.





ISTA RULES IN SEED CERTIFICATION

- ▶ Accredited laboratories are reassessed in regular intervals to examine if they continuously abide by the ISTA accreditation requirements.
- ▶ According to the testing capabilities, accredited laboratories are obliged to participate in relevant proficiency test rounds. Failure in the proficiency test programme may lead to suspension of the accreditation.
- ▶ moreover Seed producers themselves may accredit their laboratory to ensure that in-house seed testing is done correctly. **As explained above confidence to seed that you are selling increases**





ISTA RULES IN SEED CERTIFICATION

for the seed buyer?

Seed buyers are interested in buying seed of high quality. This is to be proofed through testing the seed lots' quality in a seed testing laboratory. Test reports, e.g. ISTA Certificates issued by accredited laboratories provide the seed buyer with confidence that the results on the test report correspond to the quality of the seed lot.





ISTA RULES IN SEED CERTIFICATION

For the laboratory

▶ **ISTA Accreditation** gives a laboratory formal recognition so it is technically competent to test seed using the ISTA methods and producing reliable results.

Through the independent technical evaluation of a laboratory's performance, the laboratory receives assurance that its work is performed correctly and appropriately.

During the on-site assessment, various aspects of the laboratory's work is looked at, improvement potential and non-conformities are identified. **All of these items together ensures international accreditation of a laborataory.**





ISTA RULES IN SEED CERTIFICATION

For the Laboratory

As accreditation is becoming more and more accepted by authorities, customers and stakeholder to be an efficient tool to evaluate a laboratory's testing performance, accreditation is in fact an important marketing tool.

The laboratory's address and scope of accreditation will be published on the ISTA web site for access to customers. This shows your reliability.

http://www.seedtest.org/upload/prj/laboratory/ACC_labs_copeofaccreditation_standardmethodsTR0115082013.pdf

Accredited laboratories are authorised to issue ISTA Certificates needed by seed producers to ship seed into various countries/distinct economies.





ISTA RULES IN SEED CERTIFICATION



ISTA Certificate

ISTA Membership

ISTA Rules

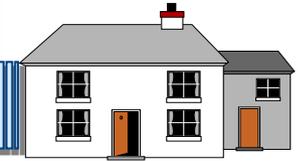
ISTA Accreditation Programme

Q-Audit

- Quality assurance system according to the ISTA Accreditation Standard
- ISTA audit every three years
- Audit by two ISTA auditors

Proficiency Testing

- 120 participating laboratories world wide
- The laboratory's performance is directly linked to its accreditation status
- Three test rounds per year



Seed Testing Laboratory

ISTA RULES IN SEED CERTIFICATION

THANK YOU FOR YOUR ATTENTION

<http://www.ttsm.gov.tr>

