

March 2007

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منظمة الأغذية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations

Organisation  
des  
Nations  
Unies  
pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## COMMISSION ON PHYTOSANITARY MEASURES

Second Session

Rome, 26 – 30 March 2007

Presentation by ISTA

Agenda Item 8.3

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The International Seed Testing Association (ISTA)  
and  
the ISTA Seed Health Committee

Activity Update 2007

Presentation to the 2<sup>nd</sup> Session of the Commission on Phytosanitary Measures, Rome, March 26-30, 2007



1. The International Seed Testing Association (ISTA)



International Seed Testing Association (ISTA)

- is an international non-profit association of collaborating seed testing laboratories, seed analysts and scientists
- was founded in Cambridge 1924
- the exclusive voting right is held by Governments
- has 76 member countries worldwide
- its products (e.g. certificates) are requested by national laws in many countries for the trading of seeds



International Seed Testing Association (ISTA)

Objectives

- 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.
- 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, and to establish and maintain liaison with other organisations having common or related interests in seed.



International Seed Testing Association (ISTA)

Currently active in four business areas:

- development & validation of seed testing methods
- quality assurance of seed testing laboratories
- training & education of seed analysts worldwide
- promotion of seed science activities



ISTA Laboratory Membership

Status	year	Private		Seed company		Governmental			
		2006	2006	2006	2006	2006	2006		
Region									
Africa		16	0	3		13			
Asia & Pacific		47	4	14		29			
Eastern Europe		33	0	5		28			
Western Europe		58	3	14		41			
North America		9	4	1		4			
South America		11	0	1		10			
Total:		174	100%	11	6.32%	38	21.84%	125	71.84%
174 member laboratories worldwide in 2006									



## 2. The ISTA Seed Health Committee (SHC)



### ISTA Seed Health Committee (SHC)

- one of 16 ISTA Technical Committees and Task Forces.
- consists of 15 seed pathologists from 14 countries .



### ISTA Seed Health Committee (SHC)

#### Responsible for:

the development, validation and international standardisation of seed health testing methods for seed quality and quarantine purposes in the areas of

- mycology
- bacteriology
- virology
- nematology



### ISTA Seed Health Committee (SHC)

- Seed Health Methods being proposed for the inclusion in the ISTA International Rules for Seed Testing need to be validated following the ISTA Generic Method Validation programme for Seed Testing.
- To report results of ISTA Seed Health Methods on ISTA Certificates, laboratories need to become ISTA accredited following the requirements of the ISTA Accreditation Standard based on the ISO standard 17025.



## Update on current activities of the ISTA Seed Health Committee (SHC)



2006 - three new methods have successfully been validated and are proposed for inclusion into the ISTA Rules during the Ordinary Meeting 2007:

1. *Microdochium nivale* on *Triticum* spp.
2. *Pseudomonas savastanoi* on *Phaseolus vulgaris*
3. Pea early browning virus and pea seed-borne mosaic virus on *Pisum sativum*.



In March 2007 the first international ISTA seed health proficiency test will be executed to check the performance of participating ISTA member laboratories.

**Proficiency test of *Botrytis cinerea* on *Helianthus annuus***

Participation of currently 32 laboratories from 29 different countries from all parts of the world.



**With regard to Seed Health Testing ISTA has achieved:**

- introduction of a method validation programme since 2001
- 24 standardised Seed Health Testing Methods
- international operating accreditation system for seed health testing laboratories
- international proficiency testing programme



International Seed Testing Association - ISTA

Table 19: ISTA Official Seed Health Testing Methods

Method No.	Title	Reference	Year Approved	Latest Revision
1000.01	Seed viability	ISTA Rules	2001	2007
1000.02	Seed viability	ISTA Rules	2001	2007
1000.03	Seed viability	ISTA Rules	2001	2007
1000.04	Seed viability	ISTA Rules	2001	2007
1000.05	Seed viability	ISTA Rules	2001	2007
1000.06	Seed viability	ISTA Rules	2001	2007
1000.07	Seed viability	ISTA Rules	2001	2007
1000.08	Seed viability	ISTA Rules	2001	2007
1000.09	Seed viability	ISTA Rules	2001	2007
1000.10	Seed viability	ISTA Rules	2001	2007
1000.11	Seed viability	ISTA Rules	2001	2007
1000.12	Seed viability	ISTA Rules	2001	2007
1000.13	Seed viability	ISTA Rules	2001	2007
1000.14	Seed viability	ISTA Rules	2001	2007
1000.15	Seed viability	ISTA Rules	2001	2007
1000.16	Seed viability	ISTA Rules	2001	2007
1000.17	Seed viability	ISTA Rules	2001	2007
1000.18	Seed viability	ISTA Rules	2001	2007
1000.19	Seed viability	ISTA Rules	2001	2007
1000.20	Seed viability	ISTA Rules	2001	2007
1000.21	Seed viability	ISTA Rules	2001	2007
1000.22	Seed viability	ISTA Rules	2001	2007
1000.23	Seed viability	ISTA Rules	2001	2007
1000.24	Seed viability	ISTA Rules	2001	2007



**Potential Areas for IPPC and ISTA collaboration**



**Three areas can be identified**

1. **Sampling**  
The ISTA sampling plan - the drawn seed sample represents the average quality of the seed lot
2. **Purity analysis of a seed lot**  
Identifies all species occurring in a seed lot  
Invasive seed species could easily be detected.  
The defined procedures in the ISTA Rules ensures that the results are true and reliable.
3. **Methods for the detection of host-pathogen combinations**  
ISTA Rules exist for all important host-pathogens in seed

Thank you for your attention



[www.seedtest.org](http://www.seedtest.org)