



Purity committee progress report

Working programme, activities, special projects

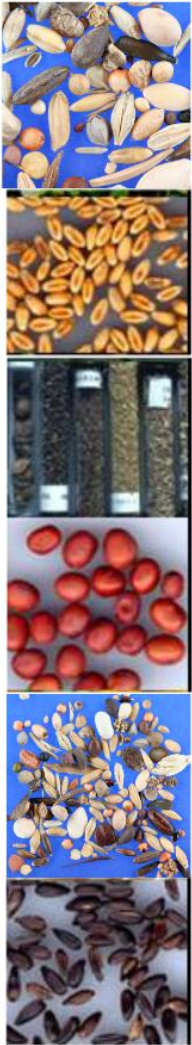
Maria Rosaria Mannino

GEVES-SNES* , Angers, France

*Groupe d'Étude et de Contrôle des Variétés et des Semences – Station Nationale d'Essais des Semences
Variety and Seed, Study and Control Group – National Seed Testing Station



Committee members



1. Maria Rosaria Mannino (Chairperson) FR-France
2. Jane Taylor (Vice-Chairperson) UK-United Kingdom
3. Ken Allison CA-Canada
4. S.C. Aswatha Narayana IN-India
5. Gerarda de Boer NL-Netherlands
6. Fabio Ferrari IT-Italy
7. Axel Goeritz DE-Germany
8. Steve Jones UK-United Kingdom
9. Monica Moreno AR-Argentina
10. Deborah Meyer US-United States
11. Andreas Ratzenboeck AT-Austria
12. Zita Ripka HU-Hungary





Pure Seed Definitions Working Group

- **Leader** : Steve Jones (UK)
- **Members** : Fabio Ferrari (IT), Zita Ripka (HU), Corinne Sahuguède (FR), Jane Taylor (UK), Helen Appleyard (UK), Debbie Meyer (USA), Bettina Kalert (ISTA)
- **2004-2007 programme** :
 - **new edition of the handbook with illustrations**





Pure Seed Definitions Working Group Progress



New handbook

- Loose-leaf format
- Include images of seed
- Glossary with illustrations



Pure Seed Definitions Working Group Progress



- Objective: to finish handbook before the end of 2007



ISTA Handbook on Pure Seed Definitions



ISTA

International Seed Testing Association

ISTA Ordinary Meeting
Iguassu Falls, Brazil

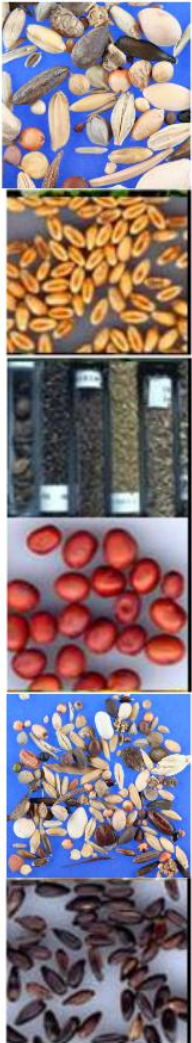
Maria Rosaria Mannino
Purity Committee Progress Report
10 May 2007





Blowing Working Group

- **Leader:** Gerarda de Boer (NL)
- **Members:** Corinne Sahuguède (FR), Deborah Meyer (US), Jette Nydam (DK), Jane Taylor (UK), Dorothy van Horsen (CA)
- **2004-2007 programme:**
 - **Split samples of *Poa* and *Dactylis glomerata***
 - **Blowing of mixtures**
 - **ISTA and AOSA calibration samples comparison**





Blowing Working Group Progress

- Starting point was a questionnaire
- Variability of practices in blower calibration not really acceptable for uniformity in seed testing





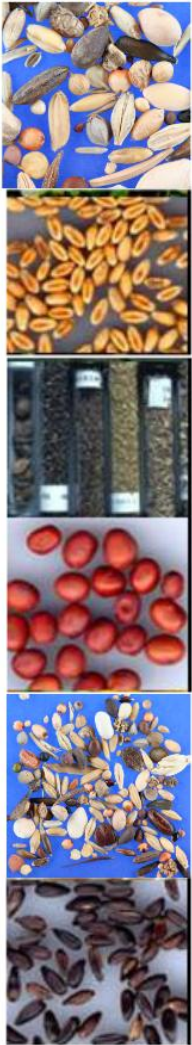
Blowing Working Group Progress

- As a follow-up to the questionnaire and the discussion during the purity workshop in Zurich (June, 2006) :
 - three different procedures have been agreed: procedure for blowing; procedures for splitting and checking calibration samples
 - focus on the differences between ISTA and AOSA calibration samples and calibration procedure





Rules Development Working Group



- **Leader:** M.R. Mannino (FR)
- **Members:** Purity Committee Members
- **2004-2007 programme:**
 - **Amalgamation** of Chapter 3 and Annexe (excluding lists of 3.2.1.A.1 Part 1 & Part 2. and glossary)
 - **Division** of Chapter 11 (coated seeds) in the relevant Chapters 2, 3, 4, 5.
 - **Purity rules improvement**



Rules Development Working Group Progress

- Rules amalgamation

New chapter 3

- Proposals of purity rules changes
2008

9 items discussed and 5 changes proposed





Rules Development Working Group Progress

Aims:

- **Simplify the use of PSD 10** by dividing the PSD into two PSDs
 - for *Brassicaceae*, *Fabaceae*, *Cupressaceae* and *Taxodiaceae*: new PSD 11
- **Improve PSD 51** for tree species and change the part of the glossary related



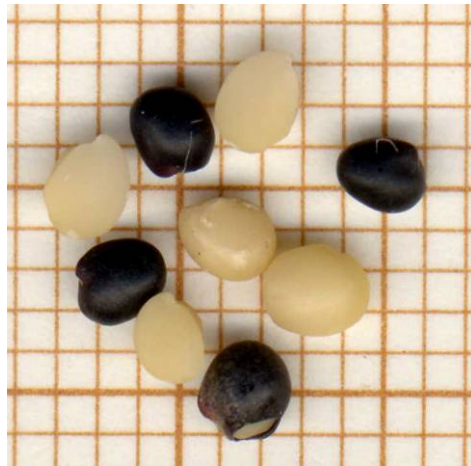


Proposed changes of ISTA Rules for 2008 – PSD 10 and 11

Proposal for Rules 2008

Trifolium subterraneum :
seeds with = pure seeds
and without testa = inert matter

PSD 11



Lycopersicon esculentum :
With or without testa = pure seeds

PSD 10



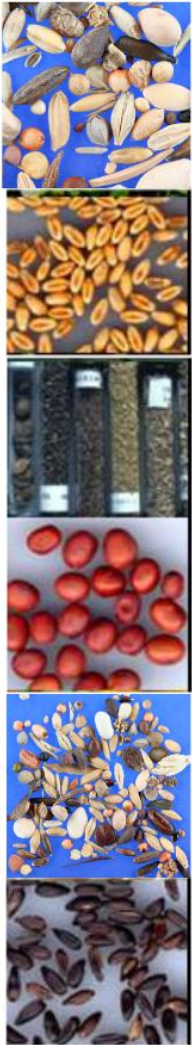
Current Rules

PSD 10





Tropical and sub-tropical species Working Group



- **Leader:** Monica Moreno (AR)
- **Members :** S.C. Aswath Narayana (IN), P. Balamurugan (IN), Rosinha Pelsoni (BR), Pamela Strauss (ZA), Izelle Allison (ZA)
- **2004-2007 programme**
 - work on *Chloris gayana*
 - liaison with task force: e.g.
 - find adapted PSDs
 - improve purity analysis





Tropical and sub-tropical species Working Group Progress

- Revision of the PSD handbook by finding images and seeds of tropical and sub-tropical species for the new version
- Participation in the organisation of the purity workshop in Nakuru (Kenya)
 - Suggestion of issues to be discussed, such as training on particular PSDs



Tropical and sub-tropical species Working Group Progress

- Method validation programme after purity workshop in Kenya (July 2006)
 - First round: *Solanum nigrum* (PSD 10), *Cleome gynandra* (PSD 10), *Bupleurum rotundifolium*
 - Second round: *Passiflora edulis*, *Carica papaya*





Seed identification Working Group

- **Leader:** M.R. Mannino (FR)
- **Members:** Liciniu Dragos (FR), Fabio Ferrari (IT), Axel Goeritz (DE), Monica Moreno (AR), Andreas Ratzenboeck (AT), Zita Ripka (HU)
- **2004-2007 programme**
 - Finalize Universal List - List of Other Plant Species for identification by ISTA Accredited Laboratories
 - Seed descriptions for UL species with glossary and images
 - Publications, list of seed specialists, list of botanical gardens





Seed Identification Working Group Progress: Universal List of Species

- **Universal List of Species**

- First version of 100 species
- Second version of 130 species
- Update regarding the ISTA List of Stabilized Plant Names

- **Aims**

- Minimum requirement in laboratory reference collections
- Species are used for proficiency tests



Seed Identification Working Group Progress: Universal List of Species

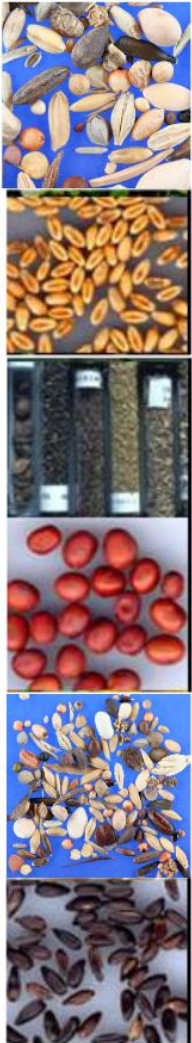


- Current work following the objective approved by the EC of two types of list
 - **one basic list** and **different complementary lists**
(plus a comprehensive collection of samples)
- Draft of the **ISTA Universal List of Species Instruction**





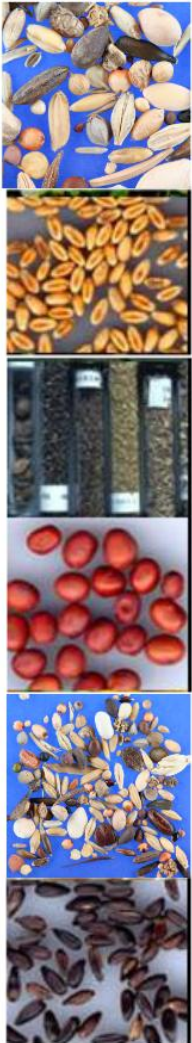
Seed Identification Working Group Progress: Universal List of Species



- Assessment of the species in the List against different existing seed collections
 - Augustenberg collection: 85 % of the species
 - GEVES collection: 42 % of the species in Volume 1 and 8 % of the species in Volume 2 (not yet commercialised)
- Special meetings to be organised
 - **To establish complementary lists**
 - **Training workshops** in Angers (FR, October 2007) and in Cordoba (AR, May or June 2008)



Workshop development and organisation Working Group



- **Leader:** Maria Rosaria Mannino (FR)
- **Members:** Monica Moreno (AR), Zita Ripka (HU), Jane Taylor (UK)
- **2004-2007 programme**
 - basic programme for workshop organisation
 - to organise workshops in 2005, 2006 and 2007





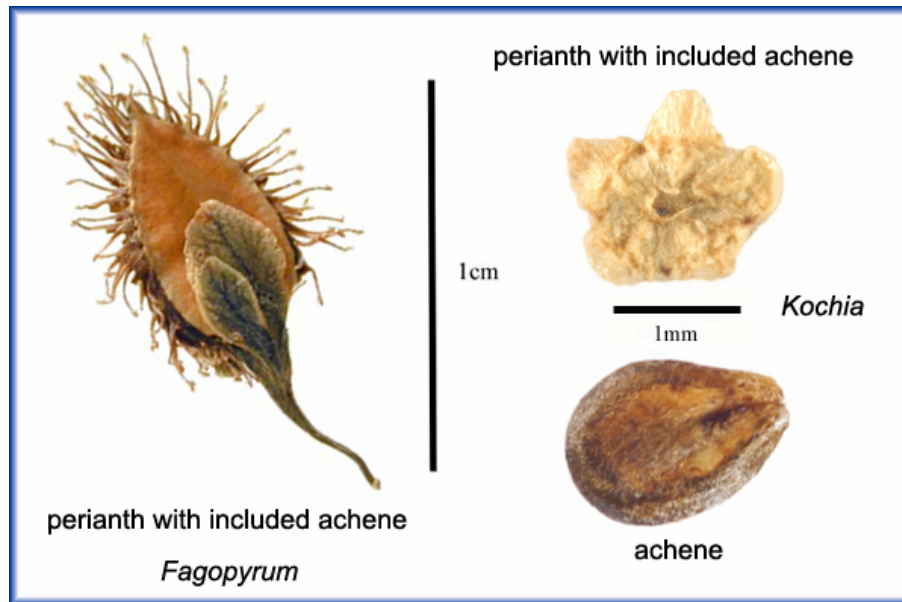
Workshop development and organisation Working Group Progress

- **Basic programme for workshop**
 - prepared by Ken Allison in 2005 and sent to the Secretariat
- Content
 - standard programme
 - Used for the organisation of the purity workshop 2006



Workshop development progress

- **Purity workshops 2006: Zurich, June 2006**
 - 21 participants from 12 countries (Europe, America and Africa)
 - improved pure seed assessments and seed identification



Alopecurus pratensis



Workshop development progress

Purity workshops 2006: Nakuru, July 2006

- 36 participants from 10 different African countries
- Six presenters animated technical sessions and discussion
- items related to tropical and sub-tropical species



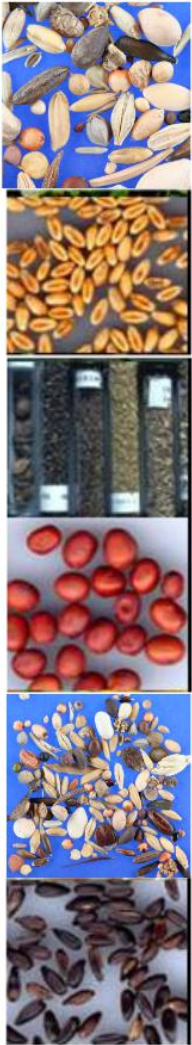
PSD 36 : *Setaria spachelata*



PSD 42 : *Chloris gayana*



Workshop development progress



Purity workshops 2006: Nakuru, July 2006

- Conclusion
 - work on tropical crops whose methods are yet to be developed or validated for inclusion into ISTA Rules
 - Round tests on *Solanum nigrum*, *Cleome gynandra*, *Bupleurum rotundifolium*, *Passiflora edulis* and *Carica papaya*

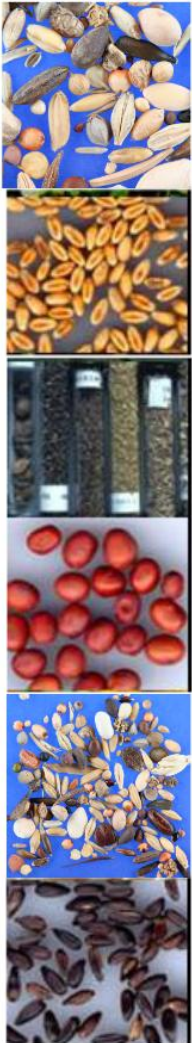




Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium

PSD Working Group

- Finalize the new Pure Seed Handbook (2006-2007): **done**
- Printing of ISTA publication : **end of 2007**
- As follow up to 2007 discussions : **improvement of some current PSDs**

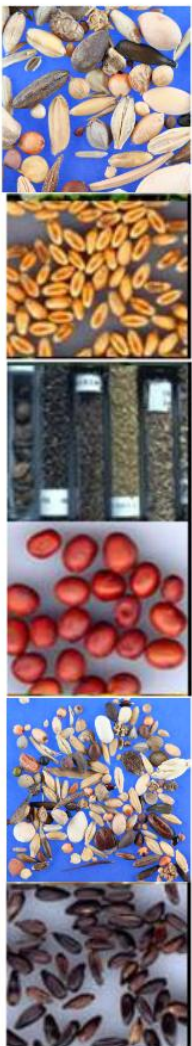




Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium

Blowing

- Questionnaire : **done (2005)**
- Procedures for blowing and calibration samples division and control: **discussed during in Zurich workshop (June 2006)**
- Follow up of questionnaire and workshop discussions:
 - **Need to draw up the procedures** as a part of an handbook on purity?
 - Going to compare the **ISTA and AOSA calibration procedures and samples**; provide a same supplier for calibration samples

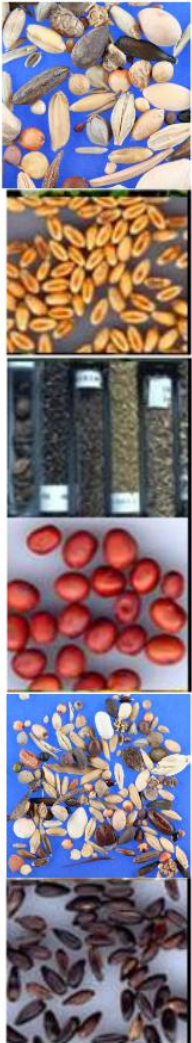




Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium

Rules Development

- Proposed purity rule amendments for 2006, 2007 and 2008: **done**
- Chapter 3 and Annex Amalgamation : **done**
- **Amalgamation and improvement of Chapter 11 (coated seeds)**
- **Division of Chapter 11** in the relevant Chapters 2, 3, 4, 5 ?
- Improvement or clarification of Purity rules:
 - purity of **coated seeds**, detection of ***Orobanche*** seeds, clarification concerning **weight precision**





Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium



Tropical and sub-tropical working group

- Collaboration for Pure Seed Handbook : **done**
- As follow up to the purity workshop in Nakuru: **find adapted PSDs** for tropical and sub-tropical species and **improve the Universal list** for these species



Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium

Tropical and sub-tropical working group

- Purity workshop in Cordoba (AR, 2008) → as starting point
- Handbook on Tropical Species
 - seed descriptions, pictures, drawings, seed production information

Panicum maximum
Panicum coloratum
Chloris
Cenchrus
Brachiaria
Leucaena
Setaria
Digitaria
Eragrostis
Dichantium





Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium

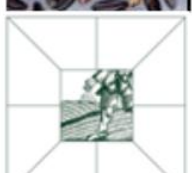


Seed Identification Working Group

- Finalize the Universal List (2006): **done**
- **Improvement of the current list (2007-2010)**
- **List of seed specialists, publications, botanical gardens (2007-2010)**
- **Training on seed identification**
 - workshops : Angers (FR, 2007), Cordoba (AR, 2008), one workshop/year for 2009 and 2010;
 - training test (2007-2010);
 - training publications (first draft in 2010)



Evaluation of progress regarding the 2004-07 programme & perspectives for the next triennium



Purity workshop organisation

- Develop a basic outline for workshop (2005): **done**
- Organise at least one Purity Workshop in 2006 : **done, two purity workshops have been organised in 2006**
- **Organisation of purity workshops:** Angers (FR), October 2007 and Cordoba (AR), 2008
 - familiarize laboratories with the seeds of species on the “Universal List of Species”
 - on purity training, Rules development



I would like to thank you
for your attention

ISTA Ordinary Meeting
Iguassu Falls, Brazil

Maria Rosaria Mannino
Purity Committee Progress Report
10 May 2007

