



**Variety Committee**

**Activity Report June 2006**

**Progress Report and Working Programme  
Update until June 2006**

**Rainer Knoblauch, Chair**

# Rules Development

## Introduction of Rules Changes



	<b>TCOM</b>	<b>Subject</b>	<b>Proposed finalisation</b>	<b>Collaboration</b>
<b>1</b>	<b>VAR</b>	<b>Chapter 8 will be re-designed in the new format to incorporate:</b> <b>a. bio-molecular tests for varietal purity</b> <b>b. the testing for specified impurities (e. g. GMO's).</b>	<b>finished</b> <b>finished</b> <b>finished</b>	<b>GMO TF</b>
<b>2</b>	<b>VAR</b>	<b>Rules Proposals</b>	<b>finished</b> <b>2006</b>	

	TCOM	Subject	Proposed finalisation	Collaboration
3	<b>Further - Activity of the Variety Committee</b>			
	VAR	<p><b>Aims: Methods shall be exact, efficient, quick, reproducible applicable to a high individual grain number, relatively free of toxic substances</b></p>		
		<p><b>List of procedures from the German method book for inclusion in the ISTA Rules</b></p> <p><b><i>- Brassica, Lactuca, Cichorium, Winter-Summer Cereals, sinapis arvensis in Brassica</i></b></p>		
		<p><b>Improvement in the ISTA Rules: alkaloid test with <i>Lupinus</i></b></p>		

TCOM	Subject	Proposed finalisation	Collaboration
	Inclusion of the following methods from the ISTA Handbook into the ISTA Rules:		
	<p>a.) Phenoltest: <i>Triticum</i> spp., <i>Oryza sativa</i>, <i>Vicia striata</i>, <i>Poa pratensis</i></p> <p>b.) Fluorescencetest: <i>Ryegrass</i> seedlings, <i>Lolium</i> spp., <i>Avena</i> spp., <i>Pisum</i> spp., <i>Glycine max</i>, <i>Festuca rubra</i> and <i>Festuca ovina</i></p> <p>c.) Tests using Chemical bases for: <i>Wheat</i>, <i>Sorghum bicolour</i>, redrice and rice varieties, <i>Melilotus</i> spp.</p> <p>d.) Other chemical tests: <i>Soybean</i>, <i>Oats Sinapis arvensis</i>, <i>Lupinus</i> spp. <i>Vicia faba</i></p> <p>e.) Chromosome number: <i>Ryegrass</i>, <i>Trifolium pratense</i>, <i>Beta vulgaris</i></p>		

## Workshops and Seminars

### Training and education workshops

	COM	Workshop subject	Proposed Date	Region
<b>1</b>	VAR	Variety Testing ISTA/FAO Protein and	2005 finished	China
<b>2</b>	VAR	Variety Testing ISTA/FAO Protein and DNA	2005 finished	Caribic
<b>3</b>	VAR	Variety Testing ISTA/FAO Protein and DNA	2006 finished	Turkey
<b>4</b>	VAR	Variety Testing ISTA IEF-Variety and Hybrid testing	2006 August	Germany



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### Training and education workshops

	COM	Workshop subject	Proposed Date	Region
<b>7</b>	VAR	Variety Testing ISTA/FAO or ISTA IEF Variety/Hybrid testing	2007 Mai	Brazil
<b>8</b>	VAR	Variety Testing ISTA Conventional Methods ( no protein and no DNA)	2007	Germany
<b>9</b>	VAR	Inquiries: Who does offer laboratory training in variety testing?  Who is prepared to contribute to the ISTA variety Workshop on IEF in August 2006 ?  IEF-Workshop - proposal, timetable ISTA Sampling - Tolerances etc		



## Special Projects

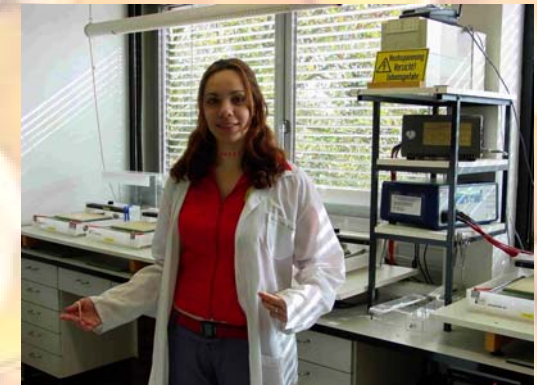
	<b>TCOM</b>	<b>Project name/subject</b>	<b>Proposed finalisation</b>	<b>Collaboration</b>
<b>1</b>	<b>VAR</b>	Reorganise the Variety Committee and find adequate members	June 2006	ECOM
<b>2</b>	<b>VAR</b>	Form Working Groups on specific types of Variety Testing (techniques, crops or regions oriented?)	June 2006	Members, see amendment below
<b>3</b>	<b>VAR</b>	Do a survey on methods to find a. people/institutions that have methods available, b. people/institutions that are looking for methods.	June 2006  <b>June 2006</b>	Questionnaire running in progress
<b>4</b>	<b>VAR</b>	Design a searchable database from all data obtained from the survey.	2006/07	In progress

## Special Projects

	<b>TCOM</b>	<b>Project name/subject</b>	<b>Proposed finalisation</b>	<b>Collaboration</b>
<b>5</b>	<b>VAR</b>	<b>Make the database available</b> a. via ISTA-website, and b. through a hardcopy version	<b>June 2006</b> <b>December 2006</b>	<b>ISTA Secretariat Website first draft elaborated</b>
<b>6</b>	<b>VAR</b>	<b>Identify 'areas of interest' and find means to fill these with (externally funded) research</b>	<b>2007- 2010</b>	
<b>7</b>	<b>VAR</b>	<b>Run proficiency tests with Triticum, Pisum and Avena</b>	<b>2006</b>	<b>PTC planned April 2006</b>

## Special Projects

	<b>TCOM</b>	<b>Project name/subject</b>	<b>Proposed finalisation</b>	<b>Collaboration</b>
<b>8</b>	<b>VAR</b>	<b>Integrate a DNA Working Group into the Variety Committee</b>	<b>2007</b>	<b>In progress</b>
<b>9</b>	<b>VAR</b>	<b>Laboratory Training ( LUFA Augustenberg, Germany )</b>	<b>2005</b>	<b>Thailand( 3 Pers.)</b>
<b>10</b>	<b>VAR</b>	<b>Laboratory Training ( LUFA Augustenberg, Germany )</b>	<b>2005</b>	<b>Brazil (2 Persons)</b>



## **PART 2**

### **Committee Membership List**

<b>Chair.</b>	<b>1</b>	<b>Rainer Knoblauch</b>	<b>Germany</b>
<b>Vice-chair:</b>	<b>2</b>	<b>Kae-Kang Hwu</b>	<b>Taiwan</b>
<b>Members:</b>	<b>3</b>	<b>Huw Jones ???</b>	<b>New members 2006</b> <b>United Kingdom</b>
	<b>4</b>	<b>Kalyn Brix-Davis</b>	<b>United States</b>
	<b>5</b>	<b>Emanuela Casarini</b>	<b>Italy</b>
	<b>6</b>	<b>Savitha H. Reddy</b>	<b>India</b>
	<b>7</b>	<b>W. Drost M. Sc</b>	<b>Canada</b>
	<b>8</b>	<b>Jerzy Drzewiecki</b>	<b>Poland</b>
	<b>9</b>	<b>Berta Killermann</b>	<b>Germany</b>
	<b>10</b>	<b>Paul Korányi</b>	<b>Hungary</b>
	<b>11</b>	<b>Ulf Kjellström</b>	<b>Sweden</b>
	<b>12</b>	<b>Anne Middleton</b>	<b>Canada</b>
	<b>13</b>	<b>Jop Schipper</b>	<b>Netherland</b>
	<b>14</b>	<b>Cheryl Dollard</b>	<b>Canada</b>
	<b>15</b>	<b>David Zhang</b>	<b>France</b>

Proposed Working Groups, Leaders,  
Members and Actions:

Working Groups	Leader	Member	Action
<b>1. Fieldtrails</b>	<b>Ulf Kjellström</b>		<b>collecting methods for database and Handbook</b>

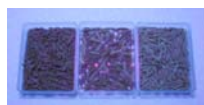
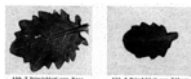


# Proposed Working Groups, Leaders, Members and Actions:

Working Groups	Leader	Member	Action
<p><b>2. Conventional Methods</b></p> <ul style="list-style-type: none"> <li>- morphological</li> <li>- anatomical</li> <li>- chemical</li> <li>- fluorescent aspects</li> </ul>	Jop Schipper		collecting methods for database and Handbook

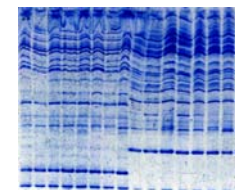
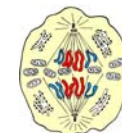
## METHODS FOR VERIFICATION OF SPECIES AND CULTIVAR

- Morphological**
    - ripe plant
    - seedling
  - Anatomical**
    - seed
  - Chemical**
    - Phenol
    - Formic acid
    - Potash solution
    - Lugol solution
    - Hydrochloric acid
  - Fluorescence**
    - floret
    - seedling
- Brassica, Raphanus*  
*- Lactuca, Cichorium, winter-summer cereals*  
*- Brassica species (testa)*  
*- Triticum varieties*  
*- Sinapis arvensis in Brassica*  
*- Sinapis arvensis in Brassica*  
*- Lupinus with / without alcaloids*  
*- Vicia sativa / villosa*  
*- Avena white / yellow var.*  
*- Trifolium species*  
*- Melilotus species*  
*- Lolium perenne / multiflorum*  
*- Festuca rubra / ovina*  
*- Allium species*



## METHODS FOR VERIFICATION OF SPECIES AND CULTIVAR

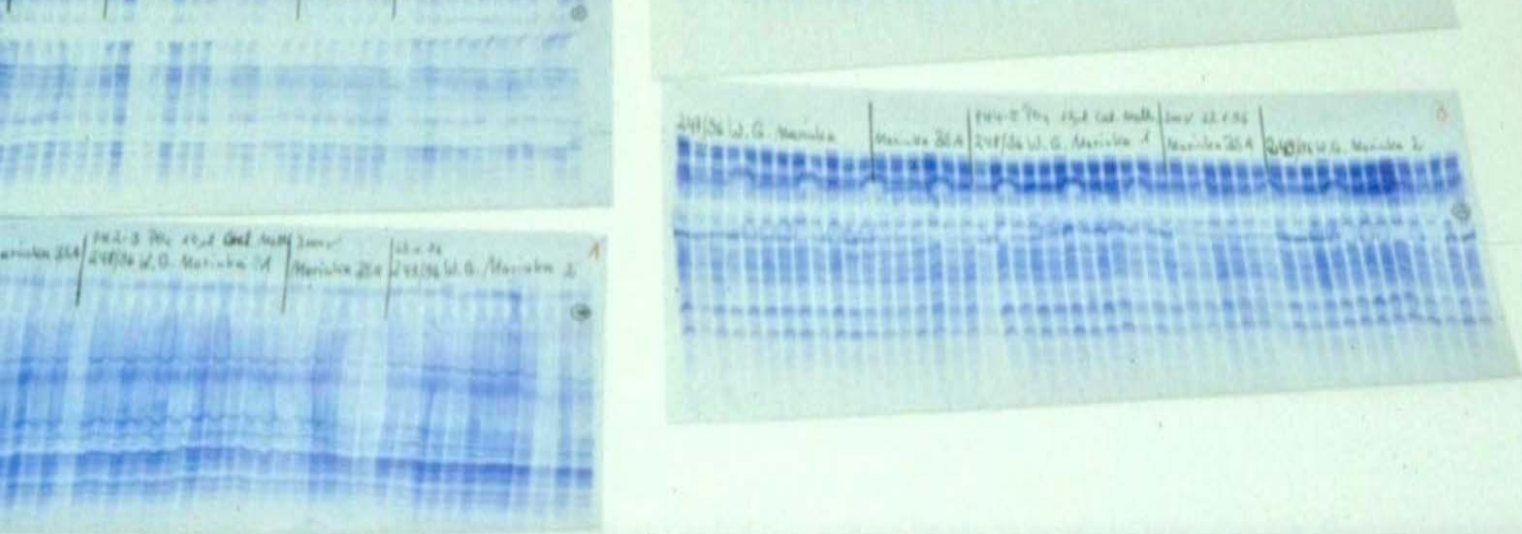
- Cytology**
    - seedling
  - Biochemical**
    - seed
- Beta species*  
*- Triticum durum / aestivum*  
*- Poa species, var.*  
*- Phleum species, var.*  
*- Trifolium pratense, var.*  
*- Triticum, Hordeum (acid-PAGE)*  
*- Lolium, Pisum (SDS-PAGE)*  
*- Zea (UTLIEF)*  
*- Helianthus (UTLIEF)*



# Proposed Working Groups, Leaders, Members and Actions:



Working Groups	Leader	Member	Action
3. Electrophoresis PAGE and SDS Isozyme Starch	Berta Killermann	P. Korany J. Drezewiecki H. Jones	collecting methods for database and Handbook - Design the new Handbook



**Proposed Working Groups, Leaders, Members and Actions:**

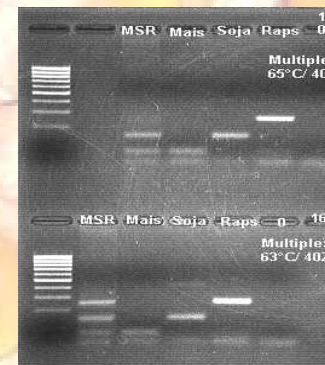
<b>Working Groups</b>	<b>Leader</b>	<b>Member</b>	<b>Action</b>
<b>4. Electrophoresis</b> IEF- Acrylamide IEF- Isozyme	Rainer Knoblauch	Savitha H.	collecting methods for database and Handbook - Design the new Handbook



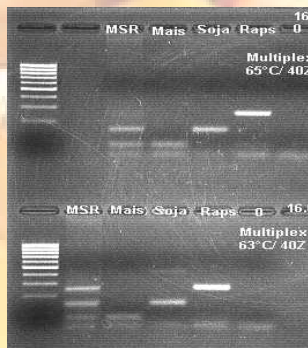
**Proposed Working Groups, Leaders,  
Members and Actions:**

<p><b>5. Proteinanalytik:</b></p>	<p>Methods for testing species and varieties available, only validation is missing:</p> <ul style="list-style-type: none"><li>- Tree species : <i>Abies, Cedrus, Larix, Picea, Pinus, Tilia, Quercus</i></li><li>- Grasses: <i>Festuca, Lolium, Poa, Agrostis</i></li><li>- Cereals: <i>Triticum, Avena, Hordeum, Secale, Oryza</i></li><li>- Vegetables-: <i>Capsicum, Cucumis, Cucurbita, Allium, Apium, Valerianella, Chichorium, Daucus, Asparagus, Lycopersicum, parsley, Pisum, Vicia, Vigna radiate, Ocimum basilicum, Solanum melongena</i></li><li>- Fodder plants: <i>Beta, Trifolium, Medicago, Brassica, Lupinus</i></li><li>- Special cultures: <i>Cocos, Carica papaya, Mango, Kidney bean, Silene</i></li></ul>
<p><b>6. Open questions:</b></p>	<p>Groups of varieties: Summer, winter wheat 2 - 4 - 6 -line barley Triticale Spelt "hybrid"</p>

# Proposed Working Groups, Leaders, Members and Actions:



Working Groups	Leader	Member	Action
DNA - Methods Variety Testing	Kae-kang Hwu	K.B. Davis E. Casarini C.Dollard D.Zhang	Methods development for Variety determination of -sugarbeet -Tomatos, <i>Rice</i> and species determination of <i>Triticum, Brassica</i>
PCR, Microsatelites, AFLP (UPOV)			



**Proposed Working Groups, Leaders, Members and Actions:**

<b>Working Groups</b>	<b>Leader</b>	<b>Member</b>	<b>Action</b>
<b>8. Confirmation of origin by Isotope testing; Contact with the Isotop Laboratory in Jülich, Germany</b>			
<b>9. Others:</b>	<b>Working GroupsLeaderMemberAction</b>		



Proposed Working Groups, Leaders,  
Members and Actions:



Working Groups	Leader	Member	Action
<b>10.</b> GMO Working Group planned for 2007			Update of ISTA Website for GMO - Testing, Running PT`s

