

Symposium on  
Plant Breeding for the Future

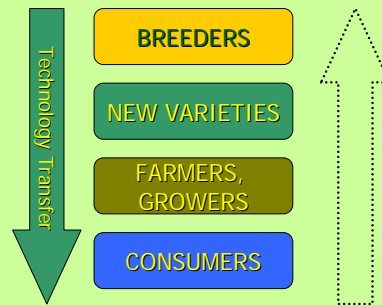
## PLANT VARIETY PROTECTION AND TECHNOLOGY TRANSFER

**Peter Button**  
Vice Secretary-General, UPOV

Geneva, October 21, 2011

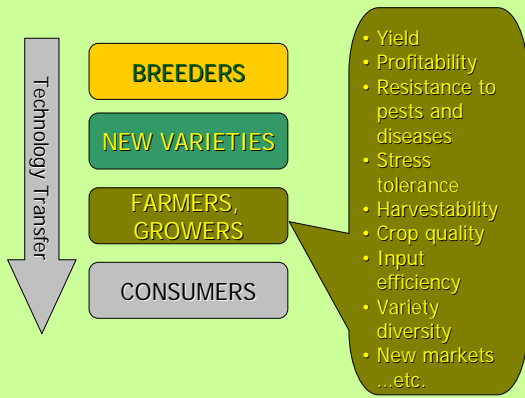
1

### PREVIEW

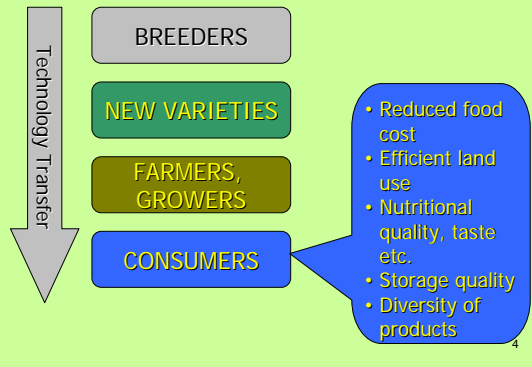


2

### Importance of Plant Breeding



### Importance of Plant Breeding



4



### UPOV MISSION STATEMENT

“To provide and promote an effective system of plant variety protection, with the aim of **encouraging the development of new varieties of plants, for the benefit of society**”

5


- Plant breeding is long and expensive **BUT**
  - Plant varieties can be easily and quickly reproduced
- Breeders need protection to recover investment

6

## FINDINGS

Introduction of UPOV system

Diverse types of breeders (private breeders, researchers)




Increases breeding activities


7

### Who can protect a plant variety?

There are no restrictions on who can be considered to be a breeder under the UPOV system: a breeder might be an individual, a farmer, a researcher, a public institute, a private company etc.



Japan Registration Case Study  
(click to see full view)



### Importance of Plant Variety Protection and UPOV

Figure 52. Republic of Korea: Number of Rose Breeders


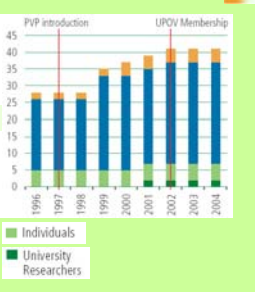


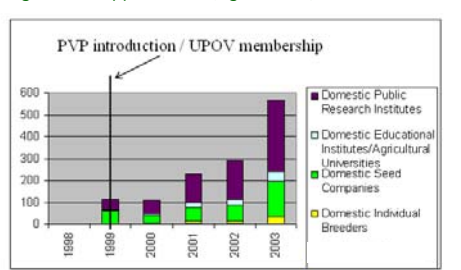
Figure 53. Republic of Korea: Number of Rice Breeders



9

### Importance of Plant Variety Protection and UPOV

Figure 33. China: Number of Applications by Categories of Applications (Agriculture)



10

### Kenya: applications for agricultural crops (1997-2003)

Crop	Category	Source of Application				Total	
		Foreign	Public	Private	Joint public & private		
Oat	Cereal	-	1	-	-	1	
Finger millet	Cereal	-	-	-	2	2	
Berley	Cereal	-	-	7	-	7	
Proso millet	Cereal	-	-	-	1	1	
Pearl millet	Cereal	-	3	-	-	3	
Sorghum	Cereal	-	3	-	4	7	
Wheat	Cereal	-	4	2	-	24	30
Maize	Cereal	-	27	14	14	55	
Tea	Industrial	-	12	21	-	33	
Pyrethrum	Industrial	-	23	-	-	23	
Coffee	Industrial	-	4	-	-	4	
Cotton	Industrial	-	1	1	-	2	
Macadamia nut	Industrial	-	4	7	-	11	
Sugarcane	Industrial	-	6	-	-	6	
Safflower	Oil	-	1	-	-	1	
Sunflower	Oil	-	5	5	-	10	
Castor oil	Oil	-	7	-	-	7	
Soyabean	Oil	-	7	-	-	7	
Bracharia	Pasture	-	1	-	-	1	
Rhodes grass	Pasture	-	5	-	-	5	
Guinea grass	Pasture	-	1	-	-	1	
Setaria	Pasture	-	2	-	-	2	
Clover	Pasture	-	6	1	-	7	
Pigeon pea	Pulse	-	4	-	-	4	
Dolichos bean	Pulse	-	2	-	-	2	
Rumur bean	Pulse	-	-	1	-	1	
Dry beans	Pulse	-	6	1	6	13	
Peas	Pulse	-	7	-	-	7	
Cow pea	Pulse	-	3	1	-	4	
Mung bean	Pulse	-	2	1	-	3	
Cassava	Root crop	-	2	-	-	2	
<b>Total</b>			<b>131</b>	<b>61</b>	<b>51</b>	<b>251</b>	

Applications		
Public	Private	Public-Private
131	61	51

} Breeder's Right and Exceptions (1991 Act)

11

Technology Transfer

BREEDERS

NEW VARIETIES

FARMERS, GROWERS

CONSUMERS

12

## Breeder's Right

[1991 Act of UPOV Convention]  
Article 14  
Scope of the Breeder's Right

(1) [Acts in respect of the propagating material]

(a) Subject to Articles 15 and 16, the following acts in respect of the propagating material of the protected variety shall require the authorization of the breeder:

- (i) production or reproduction (multiplication),
- (ii) conditioning for the purpose of propagation,
- (iii) offering for sale,
- (iv) selling or other marketing,
- (v) exporting,
- (vi) importing,
- (vii) stocking for any of the purposes mentioned in (i) to (vi), above.

(b) The breeder may make his authorization subject to conditions and limitations.

**BREEDERS** decide their policy on authorization, including conditions/limitations

## Use of Plant Variety Protection by National Research Centers

Chair: Enriqueta Molina Conclusions – Session 1

Plant Variety Protection:

- Promotes private sector involvement in research and development
- A tool for technology transfer
- Provides a legal framework for financial investment
- Encourages innovation in breeding aims, particularly for the development of new or niche markets
- Focuses investment on meeting the needs of farmers and consumers

1. Ryudai Oshima, NARO
2. Jenn James, Grasslanz
3. Shadrack R. Moephuli, ARC
4. Filipe de Moraes Teixeira, EMBRAPA
5. Yves Lespinasse, INRA

Chair: Enriqueta Molina

## Technology Transfer by the Private Sector

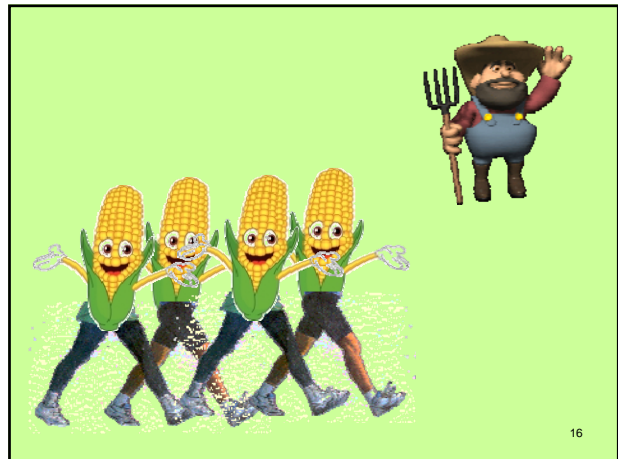
Chair: Kitirsi Sukhapinda Conclusions – Session 2

Private sector:

- An effective means of delivering varieties to farmers

1. Willi Wicki, DSP
2. Barry Barker, Masstock Arable
3. Diego Riso, URUPOV
4. Evans Sikinyi, KY

Chair: Kitirsi Sukhapinda



16

## Technology Transfer by the Private Sector

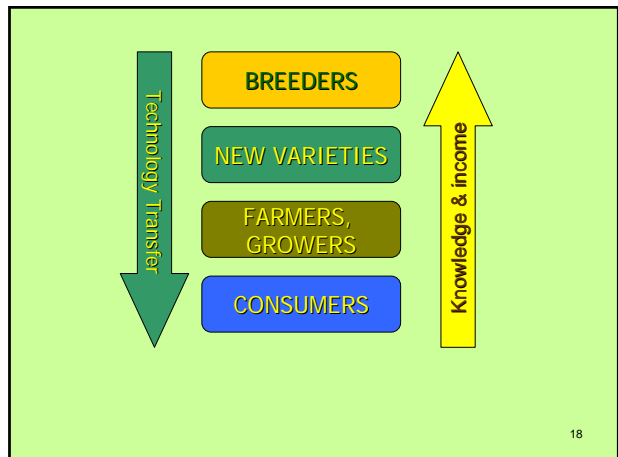
Chair: Kitirsi Sukhapinda Conclusions – Session 2

Private sector:

- An effective means of delivering varieties to farmers
- Assessment of the market potential of varieties
- Link between public research and the needs of farmers
- Provides a channel for income for public sector research
- Facilitates strategic associations and coordinated technology transfer

1. Willi Wicki, DSP
2. Barry Barker, Masstock Arable
3. Diego Riso, URUPOV
4. Evans Sikinyi, KY

Chair: Kitirsi Sukhapinda



18

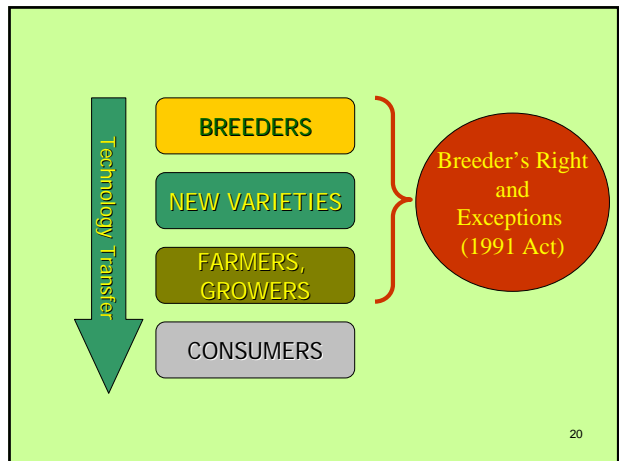
**International Research Centers**

Chair: David Boreham Conclusions – Session 3

- PVP provides a mechanism to facilitate dissemination of varieties to farmers: open access does not ensure widespread dissemination or use
- PVP provides a system to increase availability of varieties suited to farmers' needs
- PVP provides incentives for SME's, particularly local breeders and seed distributors
- The breeders' exemption provides a mechanism to facilitate access to germplasm
- The use of PVP is consistent with the ITPGRFA and SMTA

1. Lloyd Le Page, CGIAR  
2. Ruairaidh Sackville Hamilton, IRRI  
3. Ian Barker, Syngenta

*Chair: David Boreham*



### Exceptions to the Breeder's Right

Compulsory

Acts done:

- privately and for non-commercial purposes
- for experimental purposes
- breeding other varieties (breeder's exemption)

Optional

Farm-saved seed

21

### Exceptions to the Breeder's Right

Compulsory

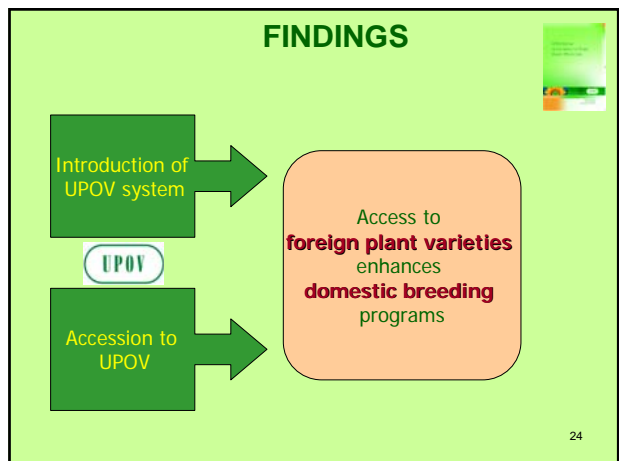
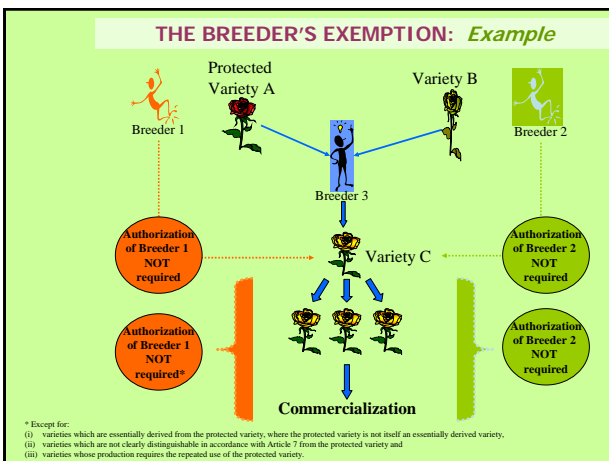
Acts done:

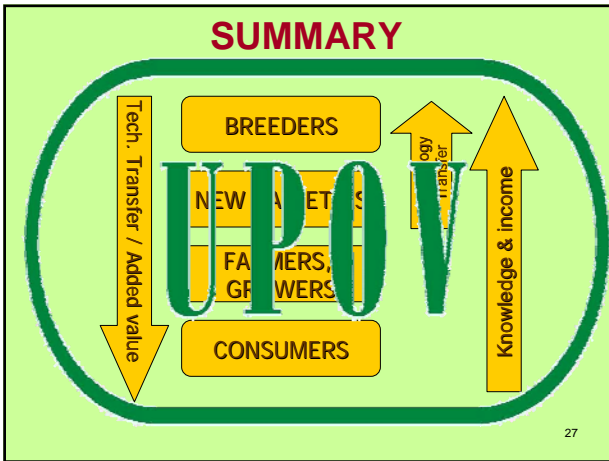
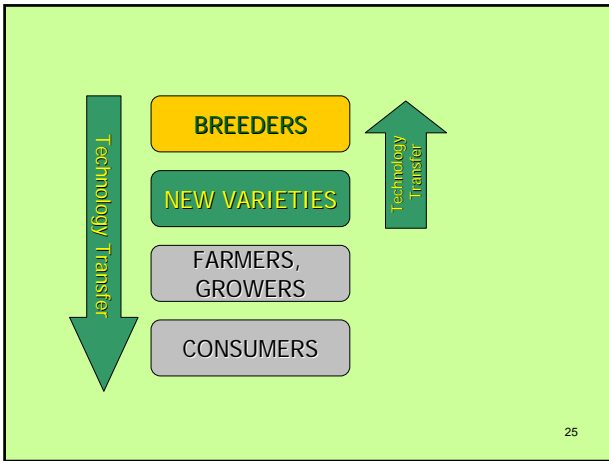
- privately and for non-commercial purposes
- for experimental purposes
- breeding other varieties (breeder's exemption)**

Optional

Farm-saved seed

22





**THANK YOU**

28