

Questions présentant un intérêt pour l'ISF concernant l'Afrique

Michael Keller, ISF Secretary General

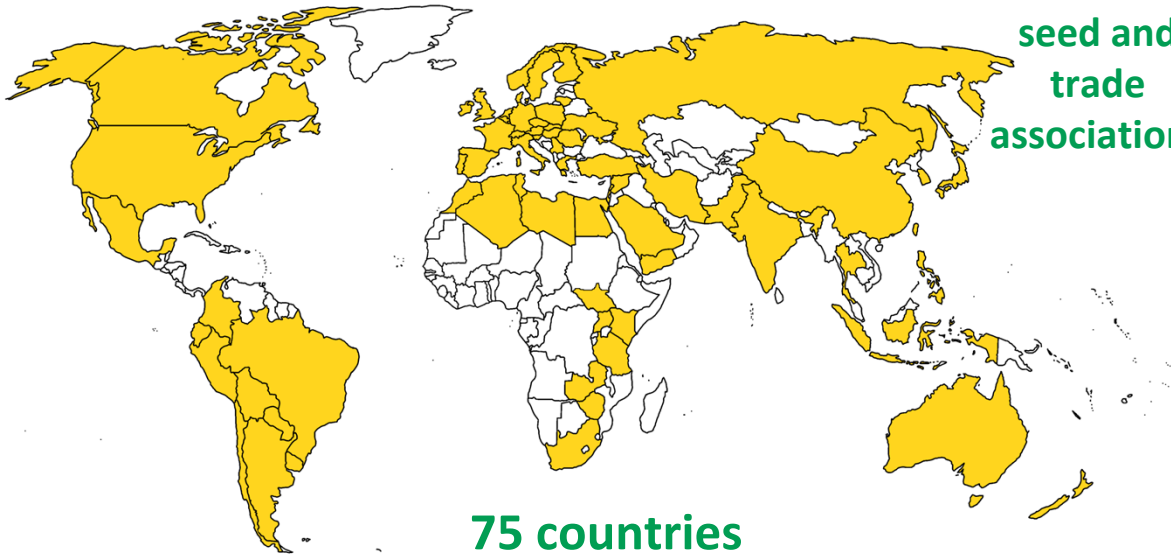
1 December 2016, UPOV

What is ISF?

- **Non-governmental, non-profit** making organization
- **“Voice of the global seed industry”**

7500+ companies

**50+ national
seed and
trade
associations**



75 countries

Role of ISF

- Represent interests of the seed industry at a global level
- Facilitate free movement of seed within a fair framework
- Promote IP rights for seeds, plant varieties and technologies
- Inform members of industry developments and in the international regulatory environment

Vision and Mission

Vision

“A world where the best quality seed is accessible to all, supporting sustainable agriculture and food security.”

Mission

“To create the best environment for the global movement of seed, and promote plant breeding and innovation in seed”

Trends concerning the Seed Sector

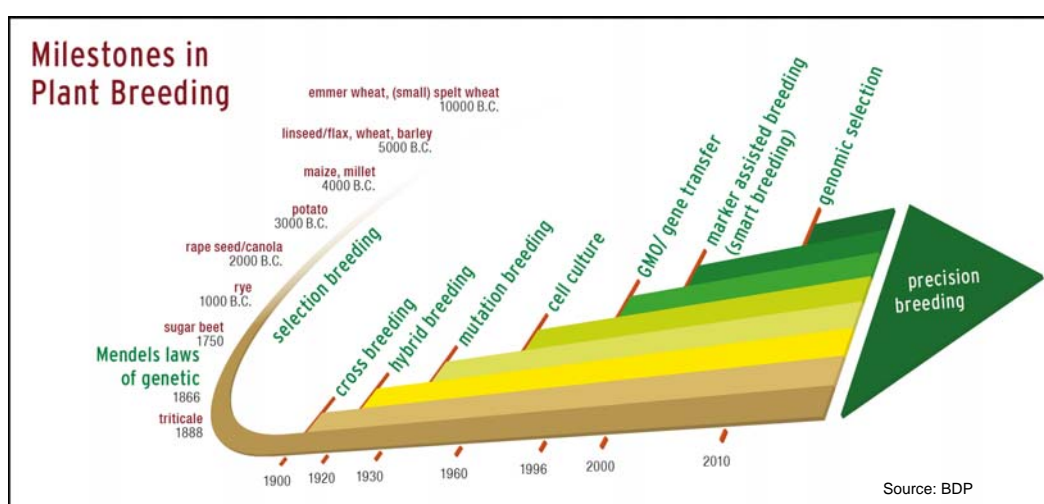
Increasing

- global seed market
- number of regulations
- faster breeding and commercial processes
- plant breeding & seed production by private sector
- counter season breeding and production
- focus on abiotic tolerance
- flow of diseases
- re-export
- regulatory oversight
- climate fluctuations
- use of plant variety protection
- availability and adoption of international certificates : varietal identification
- quality testing
- awareness on phytosanitary measures
- illegal Seed Practices
- use of ISF Trade Rules,...

Illegal Seed Practices

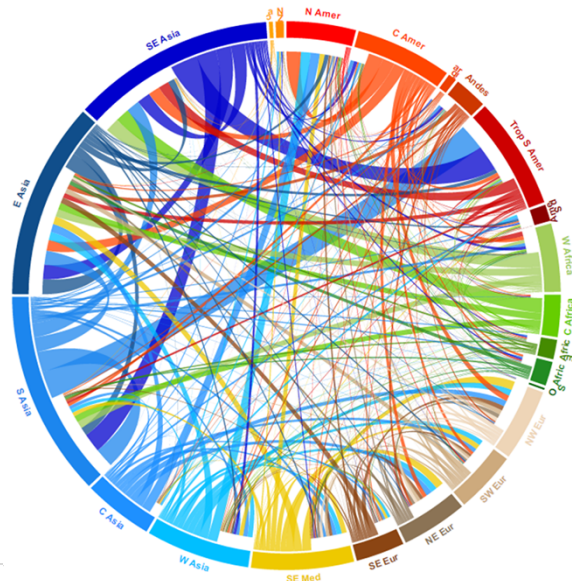
- Reproduction and marketing of PVP or patented Seed (Hybrids and OP varieties): Veg (very important), Field Crops, Forage and Turf
- Theft of parental Lines: Veg (major issue), Field Crops
- Fraudulent Labelling of varieties: Veg, Field Crops, Forage and Turf
 - Misuse Variety denomination, All Crops
- Vegetative propagation of hybrids: Veg (very important), Ornamental (not yet part of the group)
- Non- declaration / misuse of FSS: Field Crops, Forage and Turf
- OECD/ National Seed Certification Schemes at stake: Forage and Turf (major issue)
- Misuse of Grain as Seed and using of discarded Seed, Field Crops, Forage and Turf
- Trademarks

Evolution in Plant Breeding

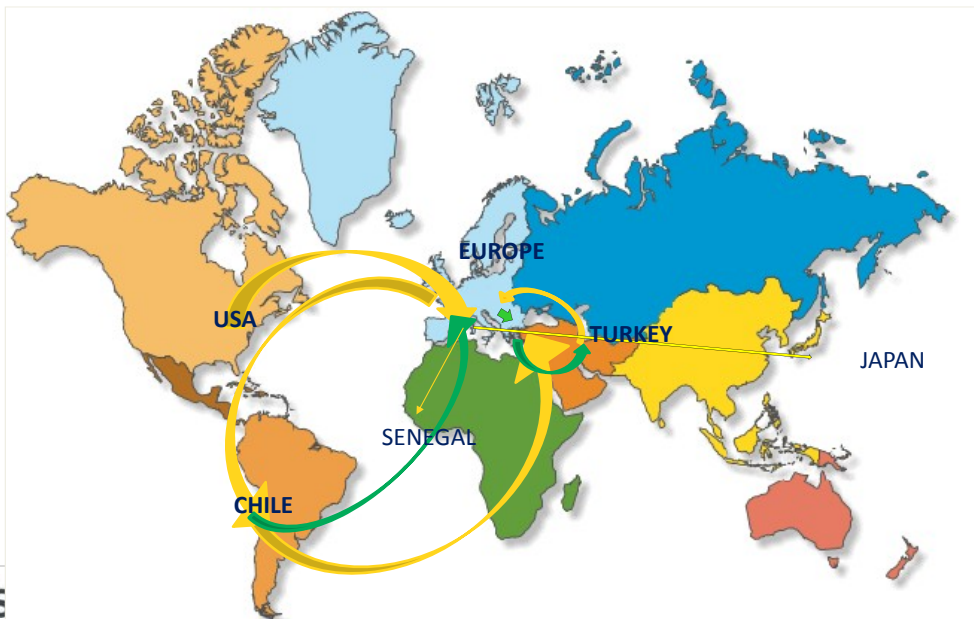


Genetic Resources: global interdependency!

“Origins of food crops connect countries worldwide”
International Center for Tropical Agriculture (CIAT)



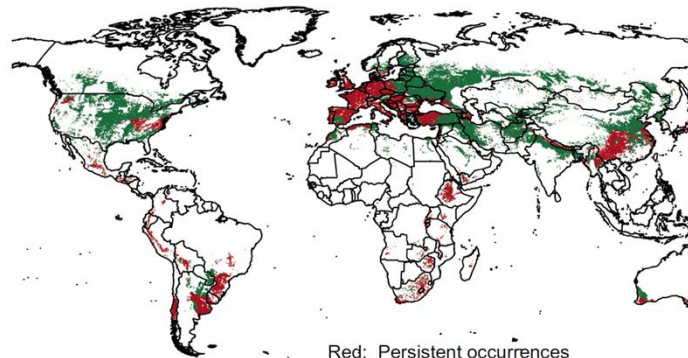
Potential pathway of a corn variety



Crops Pests and Diseases - a global issue

Global vulnerability for yellow rust

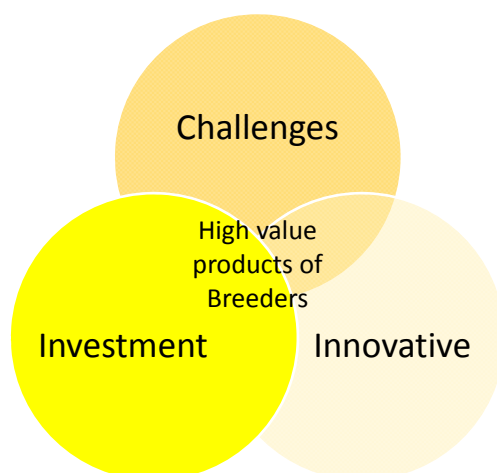
(Modelled by Pardy et al. 2015)



Lengthy and costly undertaking

- Investment of the seed sector: **10-15%** of its turnover in R&D (< 20% in vegetables)
- R&D costs to launch a new variety: **€1.5 – 2.5m** in US/ Europe
- Average time to market a new variety: **12 years**

Importance of IPP for breeders



- Creation of such products needs incentives
- IP → allows a fair return on investment and stimulates innovation

Patents for plant-related innovations

- PBR and patents: effective protection systems to stimulate the full scope of innovation in agricultural species.
 - *Preferred form of protection for varieties is through PBR*
- Right balance between **protection** as an incentive for innovation and **access** to enable others to further improve and innovate.
- Benefit of breeder's exception under PBR needs to be preserved even when patents are involved.

PBR: Handling of Germplasm

- Samples of germplasm provided to the examination office: trade secrets.
- Material should be transferred with a Material Transfer Agreement (MTA) that fully protects the PBR-holder's ownership of the material, following the explicit consent of the PBR-holder

PBR : Electronic Application Process

Standard EAP (*under development*) will be streamlined by the following features:

- single application for several countries
- single application fee for several countries
- standard application fee paid to a single bank account
- standard check of novelty

PBR: Parental lines of hybrids

- Material used in breeding should only be accessed in a manner that respects the legal rights of the owner.
- Extraction of parent seed from hybrid seed is not considered legal access.
- Proprietary parental lines developed solely for the purpose of producing hybrids should not be used by third party without the consent of the owner.

PBR : Farm Saved Seeds (FSS)

- FSS of protected varieties erodes incentives for further breeding by reducing the appropriate share of value the breeder created.
- ISF believes that FSS of protected varieties should not be permitted
- However, if authorities choose to include the optional exception, as described in Art 15 (2) of the UPOV 1991 Act, the implementation should include an obligation to pay reasonable remuneration to the breeder.

PBR : Essentially Derived Varieties

- The EDV principle appropriately strengthen PBR, yet does not restrict the breeders' exception which is a key feature of the UPOV Convention.
- The concept of EDV has drastically decreased plagiarism in plant breeding because all plagiaristic varieties are also EDVs.

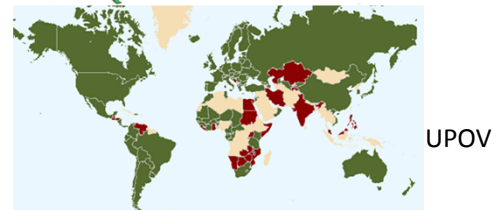
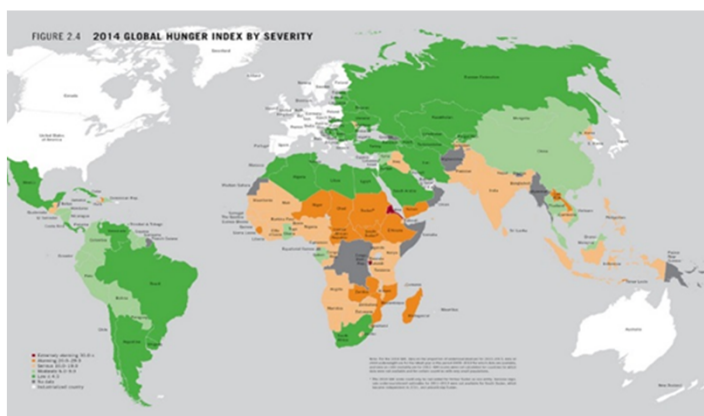
PBR: DNA markers

- ISF endorses the use of DNA-based markers for variety identification purposes and to help determine genetic similarity between varieties to help resolve disputes on essential derivation.
 - Use for improvement of the management of reference collections and planning of DUS trials
 - Use when fully predictive of the expression of DUS characteristics to simplify the testing of these characteristics.
- ISF supports the work of UPOV Working Group on BMT to find new and acceptable applications of DNA-based markers in the field of DUS testing.

PBR: some questions

- PVP is not without its problems – lack of harmonization and enforcement possibilities
 - Hesitation to sell or produce best varieties

Hunger Index vs International Organizations



The African Seed Industry

- Plant breeding is primarily public sector driven (with more reduced budget – inadequacy of public research and farmers' needs)
- Few countries have a dynamic research system that involve private sector with well established variety release (South Africa, Tunisia, Kenya, Morocco, Zimbabwe)
- Few integrated companies (approx. 20), some recent important acquisitions of African companies by international players

Market Issues

- Lack of reliable statistics on farming profiles and seed markets limits adequate planning
- National segmentation of markets prevents regional seed exchanges, thus limiting investment interest
- Market disturbance due to seed donations and unequal playing field between public/private sectors
- Weak/no breeding for important crops
- Low adoption of improved varieties
- Counterfeit seed
- Seed quality
- Inadequate investment/limited supply capacity

Regulatory Issues

- Lack of clarity on the role of public/private sectors
- Lack of IP protection but important recent developments with implementation of regional PVP systems such as OAPI (and forthcoming ARIPO)
- Regulation in most countries not adapted to farming structure
- National segmentation prevents regional exchange of seeds => limits investments & opportunities for adequate seed supply
- Phytosanitary requirements – complex, impractical and sometimes unjustified but important work in progress via sub-regional harmonization efforts

What is Needed Now

- Adapted & harmonized seed laws & regulations, common seed catalogues
- IP protection => UPOV 1991 as minimum
- Facilitate Access to Germplasm – under FAO International Treaty
- Investment & collaboration in development /use of locally-adapted seed products
- Public-private partnerships / cooperative seed action plans
- Investment in capacity building
- Use of ISF trade and arbitration rules
- Strong and independent Seed Trade Associations

Conclusions

- Critical role of improved varieties in global agricultural productivity
- Plant breeding : time and money consuming
- IP rights are indispensable to protect and sustain breeder's efforts and investments.
- UPOV constitutes the international standard system for *sui generis* PVR.
- Need of national laws and regulation to create an effective PVR environment
- Breeders have to make use of every form of legal protection and other existing tools to protect their varieties and seeds.



Seed is Life