Regulatory approaches to seeds

25-26 February, 2016
OECD, Paris

Marcel Bruins
(mbruins1964@gmail.com)
Outline

• Regulatory environment
  ➢ Global players
• International movement of seed
• Hunger
• Specific issues
  • LLP
  • NPBT’s
• Conclusion
OECD Seed Schemes

• OECD Schemes for Varietal Certification of Seed Moving in International Trade
• => promote the use of agriculture seed of consistently high quality.
• Certified seeds are produced - and officially controlled - according to common harmonised procedures in 59 participating countries
OECD Seed Schemes

Increase quality of Seed
• High germination
• Fewer weed seeds
• Less inert matter
• Less seed-borne diseases
• Known varieties
International Union for the Protection of New Varieties of Plants (UPOV)

• Provide and promote effective system of plant variety protection, to encouraging development of new varieties of plants, for the benefit of society

• Est. 1961
Global players

Benefits of UPOV

(a) Breeders
- Diversity of breeders
- Number of breeders
- Investment in breeding

(b) Improved varieties

(c) Farmers, Growers, Consumers
- Delivering improved varieties to farmers growers
- Delivering added value to consumers
- Income and Knowledge

(d) International dimension
- Development of new industry on foreign markets
- Access to foreign varieties and enhanced domestic programs
International Seed Testing Association (ISTA)

• International, non-profit association of seed testing laboratories and individual seed professionals
• Operates under governance of governments of member countries and distinct economies
• Facilitates seed trade since 1924
International Seed Testing Association (ISTA)

- Develop, adopt and publish STANDARD PROCEDURES for sampling and testing seeds and promote uniform application of these procedures, for evaluation of seeds moving in international trade
- PROMOTE RESEARCH in all areas of seed science and technology
International Seed Federation (ISF)

• Non-profit NGO, est. 1924
• Represents the interests of the seed industry at a global level
• Facilitates free movement of seed within framework of fair and science-based regulations, whilst serving the interests of farmers, growers, industry and consumers.
• Widely regarded as voice of global seed industry.
UN

FAO => Food security
CBD => Biological Diversity
  ➢ Cartagena Protocol => safe handling, transport and use of living modified organisms (LMOs)
  ➢ Nagoya Protocol => sharing the benefits arising from the utilization of genetic resources
IPPC => Phytosanitary regulations
International Treaty => Access & Benefit Sharing
Special nature of international seed movement

Breeding parental lines: EUROPE – State 1
Production of basic seeds: EUROPE – State 2
Treatment and manufacturing of basic seeds: EUROPE – State 1
Production of hybrid seeds: CHINA
Treatment and manufacturing commercial hybrid seed: EUROPE - State 1
Commercial packaging: USA
Final sale and use: MEXICO
Genetic Variation => Food Security

- Genetic Variation
- Plant Breeding (7-12 yrs)
- Plant Breeders Rights (UPOV)
- Phytosanitary Measures (IPPC)
- Seed Testing (ISTA)
- Seed Certification (OECD)
- Seed Trade (ISF)
- Happy Farmer
- Food Security
Global Hunger Index 2015

Photo courtesy: WFP (Q. Sakamaki)
Comparison

Global players

OECD Seed Schemes

ISTA

UPOV

ISF
Example of cooperation: World Seed Partnership

• Key strength: Five organizations to work together
• Focal point for information on internationally harmonised seed systems
• Supporting sustainable agriculture
One size fits all? NO!

- No certification ⇔ mandatory certification
- No seed testing ⇔ ISTA accredited labs
- No seed catalogue ⇔ full catalogue
- No seed assoc. ⇔ good seed assoc.
- No IP ⇔ UPOV 1991
- Etc.

Global players
Specific Issues

- Low Level Presence (LLP)
- New Plant Breeding Techniques (NPBT’s)
Specific issues

Low Level Presence (LLP)

- LLP = trace amount of GM event approved in country of export, but not in country of import
  - Seed & Grain trade = global in nature
  - Increase in biotech varieties
- More LLP situations to be expected
- LLP threshold is ‘marketing threshold’, not a safety threshold
- Safety of biotech product has already been determined
Thresholds applied to Seed & Grain are not unique

- Apply to trade in virtually all commodities
- Most countries have domestic thresholds related to grain products
- Many of these thresholds are endorsed by int. bodies (IPPC, CODEX, BSP, WHO, ISO etc.)
- Generally in 3-8% range
- Cover numerous aspects – e.g. everything from colour and varietal purity to presence of rocks, insect bodies, animal feces).
Examples of Marketing Thresholds

- Canadian canola grades allow 5% of “inconspicuous admixture” related to visually indistinguishable varieties of various mustards and carinata that may be present in canola;
- U.S. Number 1, 2, 3 and 4 soybeans allow for 1.0, 2.0, 3.0 and 5% of foreign material respectively;
- Australian grain trading standards for Malt Barley 1 and Malt Barley 2 have a minimum varietal purity of 95%;
- USDA National Organic Program. The USDA Organic Seal may appear on organic agricultural products that are certified 100% organic or products that are certified as containing at least 95% organic ingredients;
- Australian standards for canola include a 10% tolerance for defective canola kernels of which 3.0% may be diseased, immature, weather damaged and otherwise materially damaged. 5.0% may be sprouted and 2.0% may be green.
Several new & very promising techniques (20+yrs)
Great potential, but efficiency to be improved
Products similar/indistinguishable
Legal certainty needed for industry
Product that determines safety, not method
Need for international alignment: similar approach per technique across jurisdictions leading to legal certainty => lowest chance of trade disruptions.
Conclusion

- Massive global challenges ahead
- Ensure food security: stimulate seed sector on global & local level
- Global regulatory alignment needed
- Asynchronous regulation of LLP creating trade disruption & damage
- NPBT’s need international harmonized approach
- OECD crucial role to play
Thank you for your attention