

Trends and expectations for the global seed sector

Turkted General Assembly

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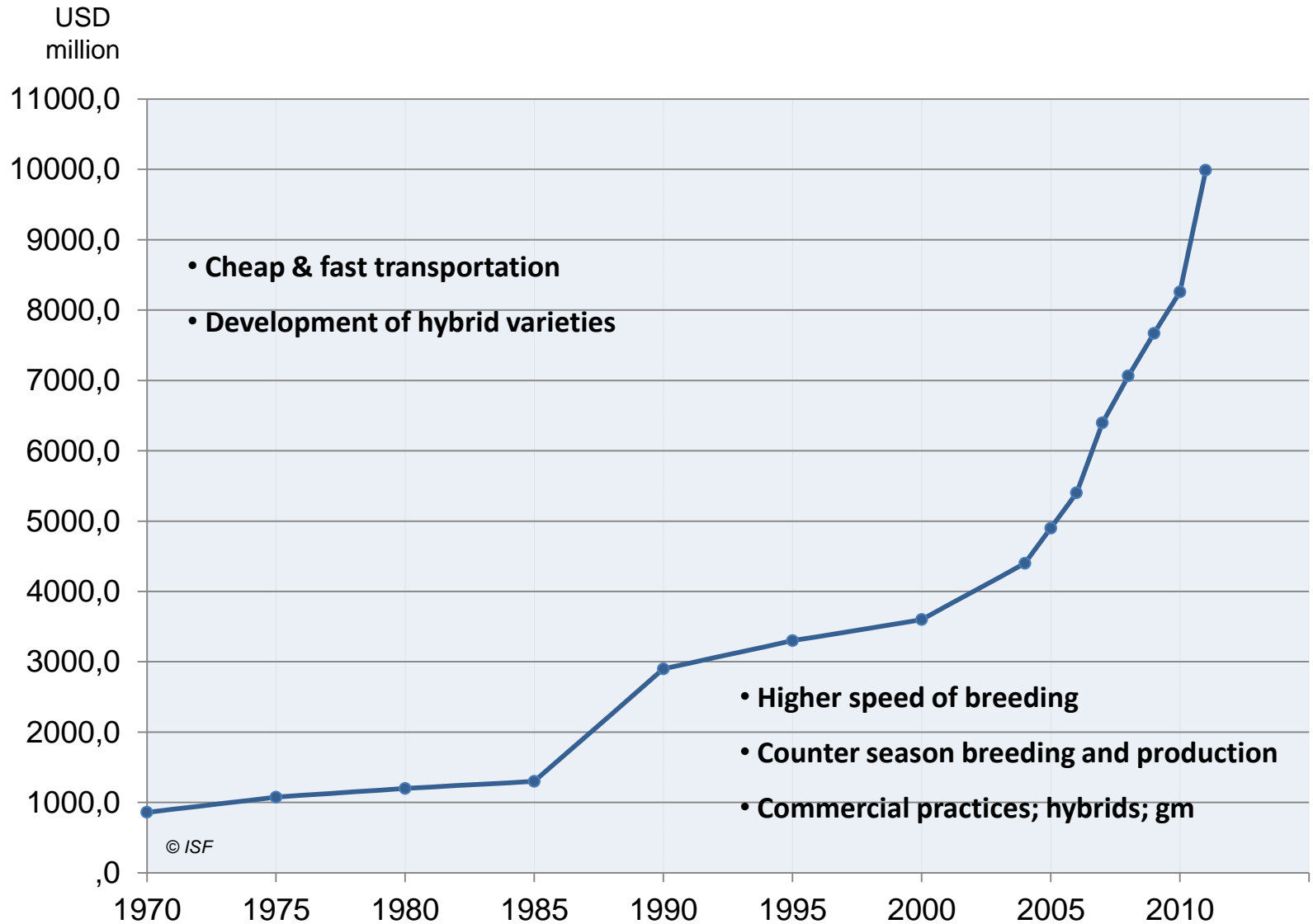
General challenges

- Changes in the seed industry faster than ever
- Technology is booming
- The world is shrinking
- Products move more quickly from first release to obsolescence
- Change of climatic conditions
- Reduction of water resources
- Globalization (consumers, producers)
- World economy and social responsibility

Trends

- International seed trade increase
- Growers are better informed of varieties available: they switch more quickly
- Variety life-time is shorter
- More crops are converted to hybrids
- Development of seed treatments
- More traits for specific uses
- Increased demand for bio-energy
- ...

Growth in International Seed Trade



Research and Development

- New herbicides tolerance
- Tolerance to abiotic stresses
- Diseases and pests
- Quality of produce/grain (*green factories*)
- Nutritional factors
- Seed protection and enhancement

Policies

- Regional agreements
- Regulations
- Customs
- Phytosanitary
- GMOs
- Intellectual Property protection

Markets

- Liberalisation and globalisation
- Competition
- Prices
- Sources of supply
- Dietary habits change

Seed companies

- The consolidation of seed companies will continue but it may have reached the top. There are factors that tend to encourage consolidation: regulatory costs, patents, government policies
- Big players may further specialize in biotechnology or new breeding techniques to produce traits and conventional varieties
- A possible return of small businesses that will find and be successful in niche markets; this is already a fact in the vegetables seed sector
- New markets

Seed companies

- There is more and more plant breeding and seed production being made by private sector
- R&D increases focus on abiotic tolerance (drought, excess of water, salinity, heat, cold, etc.)
- Access to germplasm and technologies continue to be a challenge
- Breeders face increased burden in administration and regulatory matters (International Treaty (IT), Convention on Bio-Diversity (CBD), patents)

Production of Seed

- Improve field performance: reduce the need of labour, increase yield, improve quality:
 - male-sterility; higher population; better stalks; pest resistance; diseases resistance
- Rationalize seed processing: from receiving to drying, from cleaning and grading to bagging; reduce physical stress to seed; for example:
 - scalper, cylinders, indents, gravity, elevators
 - cleaner, colorsorter, conveyors

Seed treatment

- Every year plant breeders release thousands of high potential varieties that should let farmers produce what is needed to face the increasing demand for food, feed, fiber and fuel
- Seed applied technologies protect and enhance this potential and allow its highest expression
- Seed applied products can be physical, chemical or biological



Astec

Seed treatment

- Application can be a simple powder or slurry as well as a complex multilayer coating
- With new products sophisticated equipment is necessary
- Trained operators (= technicians) the base of success
- Quality Management Systems
- Professional applicators
- Clean seed is a must



ESH concerns

- Operators exposure
- Environment protection
- Wildlife safeguard

- Risks
- Emissions
- Dust
- Waste
- Spillage/runoff



Seed companies

- The seed industry needs a strong representation to promote and defend its specific requirements:
 - Explain why IP protection is important and what could be the most appropriate solutions
 - Promote the use of top genetics and the use of certified seed
 - Have a proactive role in the preparation of rules and regulations
 - Educate the consumers to eat good and healthy food

Conclusive remarks

- Investment in agriculture is a prerequisite for economic growth
- Seed is at the base of agriculture. Modern agriculture needs high quality seed
- Sound research programs to help innovation, get access to diverse germplasm, reduce cost and time

Teşekkür ederim!