

IGTC policy

Plant breeding innovation

August 2016ⁱ

BACKGROUND: The IGTC's purpose is to convene significant expertise and representation to provide advice from a global perspective on the commercial requirements and economics of the world's food, feed and processing industries.

Since the 1980s, several new tools have been added to the plant breeder's toolbox. These tools are often grouped together under the more general term plant breeding innovation, or referred to as new plant breeding techniques. The earliest of these tools have been developed and first applied to plant breeding programs in the 1990s. Many of these 'new' approaches have been derived from innovations related to the evolution of biotechnology.

The differences compared to the earlier transgenic approaches lie in the applied methodology and the changes achieved in the genome of the crops. These tools generate similar outcomes to those that can be achieved through traditional approaches, albeit more precisely and efficiently and not necessarily involving the introduction of foreign DNA.

Because these new methods are more efficient and economical when compared to traditional approaches, they are more accessible to public and commercial plant breeders in developed and developing countries and can be used across all agriculturally important crops, including field, vegetable and specialty crops.

Two questions arise, especially in those countries where GMOs are regulated under specific legislation:

1) do current regulations encompass the use of these new methods, or not?

2) should the plant varieties that have been developed by these new methods be regulated in a similar way as GMOs, or not?

To date there is limited global experience with the regulation of crops derived from the use of these new tools. While initial decisions have already been taken in a limited number of countries relating to one or more of these new methods, discussions have only just started in others.

The challenge for the global grain trade is while new plant varieties developed with the help of certain methods may be exempt from regulation in one country, they may need to be regulated in another country or, as in the majority of countries, there remains a significant level of uncertainty. This legislative



uncertainty and especially the resulting asynchrony is of great concern to plant breeders, biotechnology companies and the overall grain trade. Likewise there is uncertainty on labelling requirements.

The resulting requirements on the international trade of grains, oilseeds and other agribulks have far reaching consequences across the world's food, feed and processing supply chain. The fact that different legislations might regulate these methods in a different fashion and labelling requirements may vary from market to market is a threat to providing for trade and adequate fungibility of plant products needed to provide for global food security and economic well being provided for by world's food, feed and processing industries

IGTC Policy:

- 1. Disruptions to trade as result of the innovation of plant breeding methods must be prevented.
- 2. Regulation of plant varieties derived from the introduction and use of Plant Breeding Innovations (PBI) must be based on the profile of the product and not the process by which it has been developed.
- 3. Regulation and labelling of plant products derived from methods must be compatible and coherent across relevant global, regional, national and local jurisdictions.
 - a) Regulation should ensure safety
 - b) Introductions of grains, oilseeds and agribulks seed from plant breeding innovation must meet minimum criteria for stewardship established in advance consultation with food, feed and processing sectors and appropriate for any functionality impacts that may need to be accounted for.
- 4. International alignment of regulatory policy on new plant breeding tools is an immediate need that includes:
 - a. Consistent policy outcomes across jurisdictions
 - b. Legal certainty as a goal
 - c. Plant varieties developed through the latest breeding methods should not be differentially regulated if they are similar or indistinguishable from varieties that could have been produced through traditional practices.
- 5. Transparency on the regulatory status of the plant variety needs to be provided throughout the commercial life cycle of plants from development to retirement as they may impact the production and trade of grains, oilseeds and pulses. Essential information includes:
 - a. how and when these plant breeding methods are utilized in the commercial pipeline
 - b. regulatory status of the plant variety
 - c. labelling requirements of the plant variety
 - d. commercial use in the production of seeds for planting and use in food, feed and processing.



- 6. Plant variety developers, based on the use of new plant breeding innovations, must provide for regulatory acceptance of products for food, feed or further processing that may have been produced with or from these plant breeding methods.
- 7. It is the responsibility of the industry using plant breeding innovations to undertake a comprehensive educational effort to inform the public of the benefits and risks, if any, of modern biotechnology.

ⁱ This policy document was approved by IGTC Management Council on Monday 8 August, 2016.