

## NEW BOOK SETS OUT PLANT BREEDING INNOVATION'S CONTRIBUTION TO SUSTAINABILITY

*The Institute on Science for Global Policy has released the book "Sustainable Agriculture: the Role of Plant Breeding Innovation", summarizing the outcomes of a conference held on 17-18 November 2020 and organized with the support of ASTA and Euroseeds. The publication is available [here](#).*

Since the domestication of food crops, humans have been plant breeders, continuously collecting and selecting for better seeds. These progressively improved seeds are the foundation for meeting the needs of growing populations for a safe, reliable and sustainable food supply. Today, plant breeding is a scientific discipline, with ever evolving plant breeding innovation (PBI), such as gene editing, that can be utilized to more efficiently and expeditiously improve seeds and varieties that can contribute to a safe, reliable and sustainable food and agricultural system.

Agricultural production faces a number of challenges that are global in nature. First, the food system shows a fundamental imbalance: while 10% of the global population suffers from hunger and 2 billion people suffer from micronutrient deficiency, 2 billion people suffer from obesity. The forecast growth in world population therefore requires a significant increase in food production, but also a more equal distribution of food supplies. Second, climate change increases the frequency of extreme events that have an adverse effect on agricultural production. Third, the agricultural sector is under increased social and political pressure to minimize its impact on the environment, climate and biodiversity.

The EU and the U.S. together represent approximately half of the world seed market and are home to a world-leading and integrated plant breeding industry, which puts both sides at the forefront of the dialogue on how PBI can help to solve the challenges of agricultural production in our time. This is why ASTA and Euroseeds supported the Institute on Science for Global Policy in organizing an online conference on 17-18 November 2020, titled *Sustainable Agriculture: the role of Plant Breeding Innovation*. The conference engaged major scientific, technological, private sector, governmental, and public advocacy communities involved in food and agricultural systems from the EU and the U.S. The wide range of stakeholders reached consensus on some key priority issues and areas of action that will be essential going forward. In particular, we would like to draw attention on the following:

**Joint acknowledgement of the need for a systematic approach to sustainable production that is responsive and adaptable to local conditions.** Different production approaches and breeding tools are all needed to meet diverse consumer preferences and localized environmental challenges. The most recent and advanced breeding methods and tools should be affordable and accessible to plant scientists and breeders in order to integrate them into local production systems.

**Shared vision of the importance of achieving Sustainable Development Goals (SDGs) and the need for consensus on the effective use of PBI in that effort.** Credible scientific information can be the foundation of convergent policy decisions and practical actions. Commonality of purpose, such as the SDGs, and common understanding on how PBI can be effectively used to support a sustainable food and agriculture system, especially between the EU and the U.S., is important in facilitating progress towards the achievement of the SDGs.

**Common recognition to continue science-based open discussion and dialogue with a broad range of stakeholders.** The plant breeding industry should continue fostering an open, continued and inclusive dialogue on the issue, spanning both sides of the Atlantic and involving all interested parties, including policymakers, scientists, breeders, farmers and NGOs, to enhance mutual understanding of the nuanced realities of food production and efficiency in diverse agricultural systems; to appreciate consumer attitudes

and perceptions around the use of new technologies; and seek opportunities for demand-driven technology development through the food and agriculture value chain.

**Collective desire to optimize the role of plant breeding to efficiently and expeditiously provide new products to support long-term sustainability in achieving SDGs.** Plant breeders, researchers, farmers and all actors involved in the food supply chain should engage in broad dialogue based on scientific evidence, focusing on plant breeding and farming systems rather than specific breeding methods, and how they can contribute to sustainability goals.

The November 2020 conference has shown a broad consensus on the fact that PBI has a role to play in the transition to a more sustainable agriculture in the 21<sup>st</sup> Century. ASTA and Euroseeds will continue to collaborate on advancing the role of plant breeding and plant breeding innovation in achieving our shared commitment to a more sustainable food and agriculture system.

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Founded in 1883, the **American Seed Trade Association (ASTA)** is one of the oldest trade organizations in the United States. Its membership consists of over 700 companies involved in seed production and distribution, plant breeding, and related industries in North America. More info at [www.betterseed.org](http://www.betterseed.org)

**Euroseeds** is the voice of the European seed sector, representing the interests of those active in research, breeding, production and marketing of seeds of agricultural, horticultural and ornamental plant species. More info at [www.euroseeds.eu](http://www.euroseeds.eu)

The **Institute on Science for Global Policy (ISGP)** is a not-for-profit organization that facilitates candid debates and caucus discussions on challenging issues facing national and international stakeholders in governmental, private sector, public advocacy, and scientific communities. The ISGP does not express independent opinions nor lobby on any issue except rational thinking. ISGP conferences are structured around 60-90-minute, moderated debates of concise position papers prepared and defended by internationally recognized and independently selected subject-matter experts and key stakeholders. More info at [www.scienceforglobalpolicy.org](http://www.scienceforglobalpolicy.org)