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Communiqué

Pathways to Achieving Food Security in Africa

Recommendations from the International Symposium on Agricultural Transformation and Biotech Crops in Africa (ISATBCA), Accra – Ghana, June 2, 2023

The International Symposium on Agricultural Transformation and Biotech Crops in Africa ([ISATBCA](#)), was organized by the West Africa Centre for Crop Improvement at the University of Ghana, Alliance for Science Ghana, and Alliance for Science – Boyce Thompson Institute, USA. The symposium aimed to address the need for expanded farmer access to crops produced using New Breeding Techniques (NBTs) and explored the potential of agricultural biotechnology to improve crops for the benefit of African farmers. Participants also discussed the deployment and impact of genetically modified organism (GMO) technology in Africa as well as the untapped potential of genome editing in achieving food self-sufficiency in Africa.

The symposium brought together over 100 scientists from 20 countries across Africa, Asia, Australia, Europe, Latin America, and the USA. With 25 main speakers delivering in-person presentations, the event was hosted by the West Africa Centre for Crop Improvement, University of Ghana.

The symposium, now established as an annual gathering, has produced key points and recommendations that can be summarised as follows:

- 1) **Addressing Food Security:** African governments should prioritise the creation of an enabling environment for the deployment of agricultural biotechnology to address Africa's food insecurity situation which surpasses that of all other continents.
- 2) **Embracing Biotechnology:** Africa should embrace plant biotechnology, including GMO technology and genome editing, to advance scientific frontiers in the fight against food insecurity. Collaborative research and discovery are essential to unlock new possibilities.
- 3) **Political Support for Biotechnology:** African governments must demonstrate political support for biotechnology by addressing challenges related to limited human resources and insufficient investments hindering its deployment and adoption. Governments must allocate sufficient resources to academic institutions that train plant breeders and biotechnologists to build human capacity and provide them with the necessary resources so they can create made-in-Africa biotech crops for the benefit of the populace.
- 4) **Increased Investments:** Governments should increase investments in agricultural biotechnology projects as a commitment to addressing food insecurity. Currently, most biotech crop projects rely on donor funding, and efforts should be made to reverse this dependence.

- 5) **Effective Seeds Systems:** Governments need to establish seed systems that ensure the delivery of biotech seeds to farmers, translating research findings into practical solutions. Traditional plant breeding, agronomy, digitisation, and other approaches should also be recognized as complementary to improving food systems.
- 6) **Streamlined Regulatory Frameworks:** Government regulatory agencies should address loopholes in regulatory frameworks for GMOs and genome-edited crops, streamlining and simplifying the processes while maintaining transparency and robustness. Harmonisation of biosafety frameworks continentwide, with the African Union taking the lead in this effort, is needed.
- 7) **Holistic Focus:** Stakeholders in agricultural biotech should focus not only on traits that directly benefit farmers, such as herbicide tolerance and pest resistance but also on consumer-oriented traits like biofortification, improved taste, and delayed ripening.
- 8) **Interdisciplinary Approach:** Research and development efforts in deploying biotech should adopt an interdisciplinary approach, considering political, sociocultural, legal, ethical, environmental, and economic factors throughout the entire process from pre-deployment to post-deployment.
- 9) **Public-Private Partnerships:** Stakeholders in agricultural biotech initiatives should foster public-private partnerships to ensure self-sustainability and the adoption of efficient business operating models for project implementation.
- 10) **Addressing Misinformation:** All stakeholders must address long-term public misinformation and disinformation campaigns about agricultural biotechnology. The scientific community should proactively educate and inform the public about the benefits of biotech crops.

By implementing these recommendations, Africa can make significant progress toward achieving food security and sustainable agricultural transformation through the responsible use of biotechnology.

Issued in Accra, Ghana by;



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