CGIAR Genebank Platform

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IPPC

INTERNATIONAL YEAR OF PLANT HEALTH 2020

Phytosanitary Awareness Week

9 to 13 November 2020

"Phytosanitary Safety for Transboundary pest prevention"

CGIAR Germplasm Health Webinar series

Inform
- The role of CGIAR Germplasm Health Units (GHUs) in ensuring germplasm phytosanitary safety

Update
- Knowledge and technological advances in phytosanitation and diagnostics

Inspire
- Compliance to phytosanitary controls in seed production and international seed distribution activities

Engage
- Work together with national and global phytosanitary communities to prevent the spread of transboundary pests

AfricaRice Bioversity International CIAT CIMMYT International Maize and Wheat Improvement Center CIP International Potato Center ICARDA Science for resilient livelihoods in dry areas ICRISAT IITA Transforming African Agriculture ILRI IRRI World Agroforestry

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CGIAR Germplasm Health Units:

SECURING THE PATH OF FOOD SECURITY

www.genebanks.org/the-platform/germplasm-health/

Background - CGIAR Germplasm Health Units

It is well-known that plants and seeds can harbor various pests (pathogens, insects, nematodes, and all other harmful biotic agents) that can spread into new territories along with germplasm. The inadvertent spread of pests along with germplasm distribution is a concern for the CGIAR Centers that, to a major extent, supply germplasm to developing countries and biodiversity hotspots, lacking sufficient phytosanitary capacity to prevent pest entry or respond to pest outbreaks.

Recognizing the hazards of pest risks, the Centers' have set up Germplasm Health Units (GHUs). The objectives of GHU are to (i) avert the spread of quarantine pests with CGIAR germplasm transfers, (ii) prevent pest outbreaks, and (iii) safeguard biodiversity. The safe and efficient transfer of germplasm is crucial for the Centers' international programs and delivery of public goods under the FAO International Plant Protection Convention (IPPC) and national quarantine regulations enforced by the national plant protection organizations (NPPOs).

GHUs serve as the Centers' gateway for germplasm exchange by ensuring compliance with the IPPC procedures and the International Standards for Phytosanitary Measures (ISPMs) used by NPPO to prevent the introduction and control the spread of pests along with plants or plant products. As the Centers' liaison, GHUs engage with the NPPO of the host and recipient countries to organize import permits and phytosanitary certificates (export permits), conduct inspections of regeneration fields, and prepare germplasm for exportation or importation in accordance with the ISPMs and other recommended actions.

In 2018 and 2019, GHUs facilitated 3,900 events of international germplasm transfers from genebanks and breeding programs, reaching >100 countries per year. In this process, GHUs tested 453,972 samples and eliminated 6% of those that were pest-affected. GHUs have employed 2.47 million diagnostic reactions. At an average cost of US$10 per sample, this amounts to an investment by the CGIAR programs about US$12 million annually on the generation of clean germplasm and preventive diagnostic testing to control the transboundary spread of pests.

These efforts have allowed germplasm transfers that would have been impossible without proper testing. The inadvertent spread has been avoided of quarantine pests through global germplasm transfers from CGIAR countries of operation pervasive with some of the most dreaded pests of quarantine significance. (e.g., cassava brown streak virus, banana bunchy top, maize lethal necrosis, Karnal bunt, wheat blast, rice blight, several seed-transmitted legume viruses, zebra chip of potato, banana Fusarium wilt Tropical Race 4, etc).

The technical resources and skill set maintained in GHUs also support the Centers' initiatives on combating emerging pests, the supply of reference material for diagnosis and phenotyping, development of diagnostics tools, surveillance procedures and capacity development.

The International Year of Plant Health (IYPH 2020) and the GHU Phytosanitary Awareness Week 2020

The UN has dedicated 2020 to raise awareness about plant health and the impact of healthy plants and forests on food security, poverty, economic development, and sustainability. The webinars as part of the "GHU Annual Phytosanitary Awareness Week" of the CGIAR Genebank Platform, is planned to exchange state of global efforts to contain the spread of invasive transboundary pests; best practices used in GHUs; engagement and collaboration with national and international plant health organizations, including NPPOs, RPPOs, FAO, IPPC, Crop Trust, and others; and discuss future scenarios and needs for protecting germplasm health and biorisk mitigation during germplasm transfer events.

Webinar objectives

- Raise awareness about CGIAR GHU's mission and functions among partners and stakeholders.
- Bring together key experts and advocates to assess the status of invasive pest threats and share experiences of best phytosanitary practices to contain the transboundary spread of pests with planting material.
- Brainstorm on future pest risk scenarios in the context of climate change and identify the strategies, technologies, and partnerships appropriate for mitigating current and future biorisks to plant and germplasm health.

Partners and Contributors

FAO, IPPC, Crop Trust, NPPOs and others

Program Outline

Day 1, Nov 9th: Inception with international webinars

Day 2, Nov 10th: Asia day

Day 3, Nov 11th: Latin America day

Day 4, Nov 12th: Africa day

Day 5, Nov 13th: Plenary discussion and conclusion

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