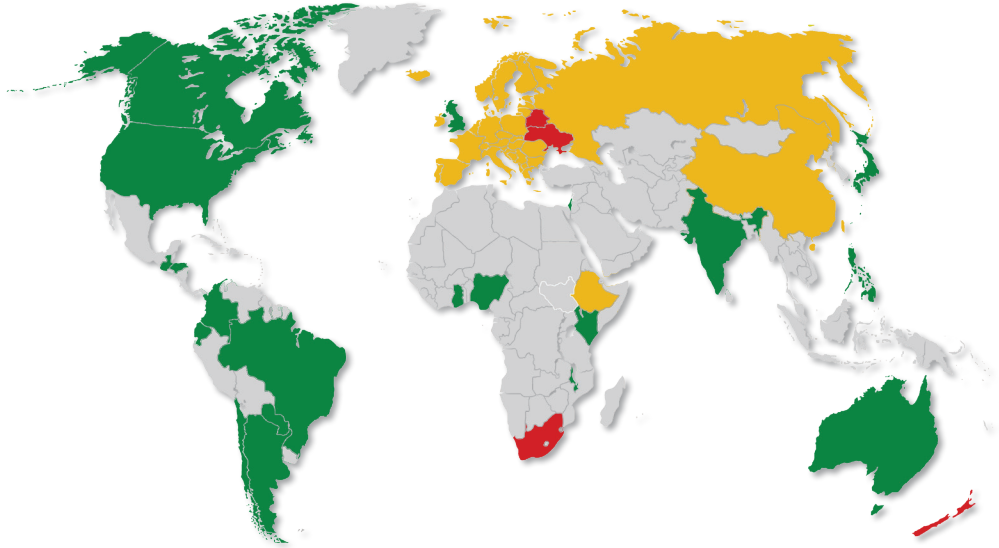


GLOBAL REGULATORY LANDSCAPE FOR GENE-EDITED CROPS

Established regulatory criteria for new breeding innovations in different world regions in the past decade



Countries where products are likely to be regulated as conventional new varieties after recent regulatory policy updates.

Countries where there are noticeable policymaking discussions over proposals to treat SDN1 as conventional new varieties.

Countries where SDN1 products should be treated as GMO according to court interpretations based on old regulations.

NORTH AMERICA



US & CANADA AMONG FIRST COUNTRIES WITH CONCRETE REGULATORY DECISIONS ON NEW BREEDING INNOVATIONS

SOYBEANS PRODUCING HIGH-OLEIC SOYBEAN OIL SOLD AS **CALYNO**

FIRST COMMERCIALIZED GENE-EDITED CROP IN THE US IN 2019 DEVELOPED USING TALENS



EUROPE



EU PROPOSAL ON NEW GENOMIC TECHNIQUES RELEASED IN JULY 2023

UK'S **PRECISION BREEDING BILL**

INTRODUCED IN MAY 2022; BECAME A LAW IN MARCH 2023 AFTER RECEIVING ROYAL ASSENT INTRODUCES SCIENCE-BASED AND STREAMLINED REGULATORY SYSTEM TO FACILITATE RESEARCH



AFRICA



4 COUNTRIES WITH ESTABLISHED GUIDELINES ON NEW BREEDING INNOVATIONS:

NIGERIA (FEBRUARY 2022)
KENYA (MARCH 2022)
MALAWI (AUGUST 2022)
GHANA (OCTOBER 2023)

LATIN AMERICA



8 COUNTRIES WITH ESTABLISHED CRITERIA OF NEW BREEDING INNOVATIONS:

**BRAZIL • CHILE • COLOMBIA • ECUADOR
GUATEMALA HONDURAS • PARAGUAY
ARGENTINA**

ARGENTINA PIONEER REGULATION ISSUED IN 2015

GENE-EDITED NON-BROWNING POTATO DEVELOPED USING CRISPR RELEASED IN 2018



ASIA AND THE PACIFIC

AUSTRALIA, JAPAN, PHILIPPINES, AND INDIA

ISSUED IMPLEMENTING REGULATIONS AND SOME APPROVED THEIR FIRST GENE-EDITED PRODUCTS



JAPAN

STARTED SALE OF GENE-EDITED HIGH GABA TOMATO IN 2021



PHILIPPINES

REDUCED BROWNING GENE-EDITED BANANA DETERMINED AS NON-GMO IN 2023 FIRST GENE-EDITED PRODUCT TO GO THROUGH THE PHILIPPINES' GENE EDITING REGULATORY PROCESS



ISAAA Inc.

For more information, visit:

www.isaaa.org

Sources:

ISAAA. 2021. Breaking Barriers with Breeding: A Primer on New Breeding Innovations for Food Security. ISAAA Brief No. 56.

ISAAA Biotech Updates. <https://www.isaaa.org/kc/cropbiotechupdate/>

SDN1: site-directed nuclease

GMO: genetically modified organism

TALENs: transcription activator-like effector nucleases

CRISPR: clustered regularly interspaced short palindromic repeats

GABA: gamma-aminobutyric acid



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