



Global regulations on microbial biotechnology in food and agriculture

The Future of Microbial Biotechnology Workshop
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Outline

- 1) Who are USDA FAS and New Tech
- 2) Global regulatory environment
- 3) Future of microbial biotech in food and feed

USDA Foreign Agricultural Service

Who is FAS?

- Eyes, ears, voice of U.S. agriculture overseas
- Economists, Trade & Marketing Specialists, Scientists, other SMEs
- 93 International offices covering 171 countries

Programs and services

- Trade Policy
- Market Development and Export Assistance
- Data and Analysis
- Food Security

New Technologies and Production Methods Division



- Team of Trade Policy Specialists and Scientists
- A fundamental mission to maintain and open market access for U.S. food and ag. exports
- Specific focus to facilitate U.S. exports of biotechnology products for food and agriculture



FAS/New Tech maintains and expands market access for food and ag. biotech products

- Monitor regulatory developments and changes around the world and advocate for science-based and risk-proportionate regulations
- Coordinate with like-minded countries to improve landscape for products of ag. biotechnologies
- Create and support programming to inform ag. biotech discussions globally



Source: USDA flickr

USDA FAS Embassy Activities



Philippines: Philippines First in World to Approve Golden Rice for Propagation

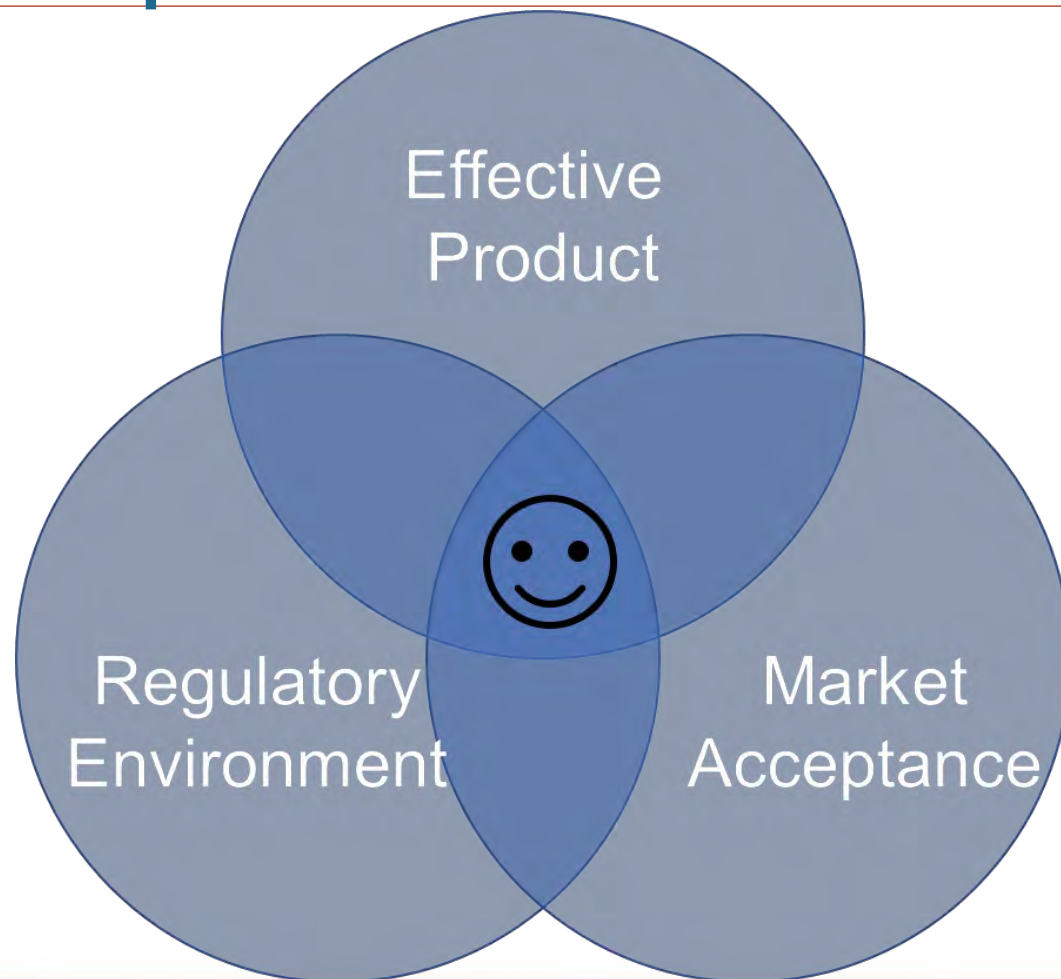
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Three factors to global success for commercial products



The Regulatory Environment

- Regulations
- Standard setting bodies
- International agreements and treaties
- Intended use

Case comparison: PRC and Canada

People's Republic of China

- Only purified enzymes allowed into food or feed
- Enzyme must be whitelisted
- No label required when the purified enzyme is incorporated into food or feed

Canada

- Enzymes, proteins, other ingredients*
- Must be on food additives list
- Labels not required on purified products



*derived from GE microbes not treated differently than conventional

Standard-setting bodies and international organizations' guidelines for food and feed



- Food and Agricultural Organization (FAO)
 - Various Codex Alimentarius Committees, primarily on Food Additives
 - Guidelines for safety assessments of foods produced using rDNA microorganisms
- Organisation for Economic Co-operation and Development (OECD)
 - Previous work on non-food GEMs
 - Microorganism section in Working Group for the Safety of Novel Foods and Feeds



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Countries leading food innovation

TRADITIONAL USE

- The United States
- The United Kingdom
- Switzerland
- Canada
- France
- Italy
- Germany
- China
- Indonesia
- India
- Ireland



EMERGING USE

- The United States
- The United Kingdom
- Switzerland
- Canada
- France
- Italy
- Japan
- China
- Israel
- Singapore
- Netherlands



MADE FROM
PLANTS!

Thank You!

Thank you! Please feel free to reach out to me if you have questions or comments for the New Tech team!

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