

# Seed Systems Approaches: An NAPPO Case Study- ReFreSH

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# Regulating Seed Trade in the United States

- Seed was long regarded by regulators as a relatively low risk pathway so seed moved in trade with minimal import requirements
- Currently, most seed for planting imported into the United States requires only a phytosanitary certificate from the country of origin and port of entry inspection
- Phytosanitary certification on consignment by consignment basis

# Changing perception

- **2013**  
Detection of CGMMV in California
- **2014**  
National Seed Health Summit
- **2016**  
Regulatory Framework for Seed Health  
(ReFreSH)



Source: CDFA

# Challenges of Regulating Seed Trade

- Thousands of pests potentially involved
- For given pest, is seed a pathway? What is the appropriate phytosanitary measure?
- Trend to increasing demand for documents and declarations that specific pests are absent in imported seed
- Providing those certifications on a consignment basis straining NPPO resources

# A New Approach

## Regulatory Framework for Seed Health (ReFreSH)

- Risk-, science-based systems approach
- Aims for an effective and more efficient program to manage phytosanitary risk of international seed movement
- Leverage industry best practices
- Voluntary system

# ISPM 38 and Systems Approaches

## ISPM 38 Section 2.5 :

- Opportunity to consider both pre-harvest and post-harvest procedures
- May contribute to effective pest risk management
- Pest management practices throughout the seed production process [industry practices] may be integrated in a systems approach
- ISPM 14 provides guidance

# Goals

- Shift current focus on consignment by consignment inspection and testing to a system where accreditation of producers and production processes is the basis for phytosanitary certification
- Accommodate all seed sectors (vegetable, cereal, row crop, farm and lawn, flower) and all sizes of companies
- Promote a harmonized global system



# ReFreSH- How It Could Work

- Seed production system approved/accredited by NPPO of exporting country
- NPPO of importing country accepts accreditations as equivalent to phytosanitary certification of individual seed consignments
- Accreditation is basis for issuing phytosanitary certificates
- Compliance assured by quality management systems/audits





# Benefits

Systems approaches create the opportunity for innovation and flexibility in managing pest risk

- For industry:
  - Faster release of product at import
  - Reduced operational cost
  - Harmonized import requirements
- For regulators:
  - Better overall understanding of the phytosanitary status of seed production
  - Greater efficiency and transparency



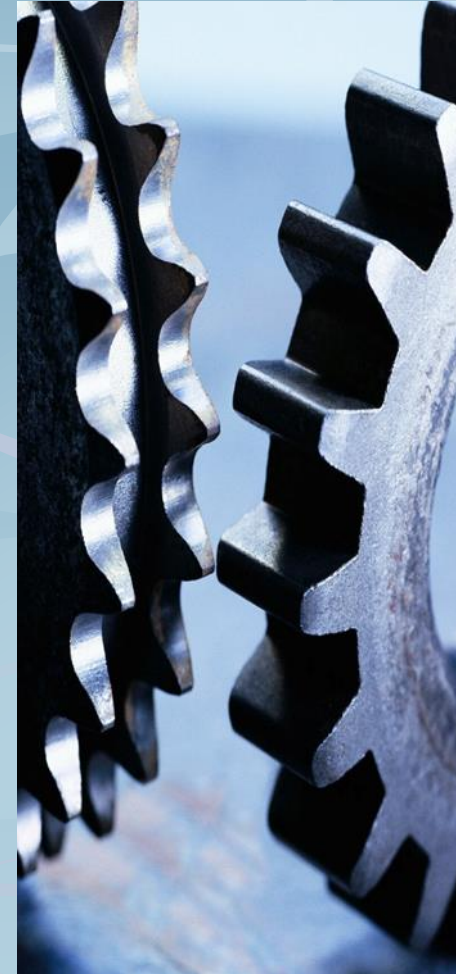
# Challenges of New Model

- How do we develop a truly global seed trade regulatory system?
- How do we as an NPPO setup a system outside of our control?
- How will we build a system based on trust, but with verification built in?

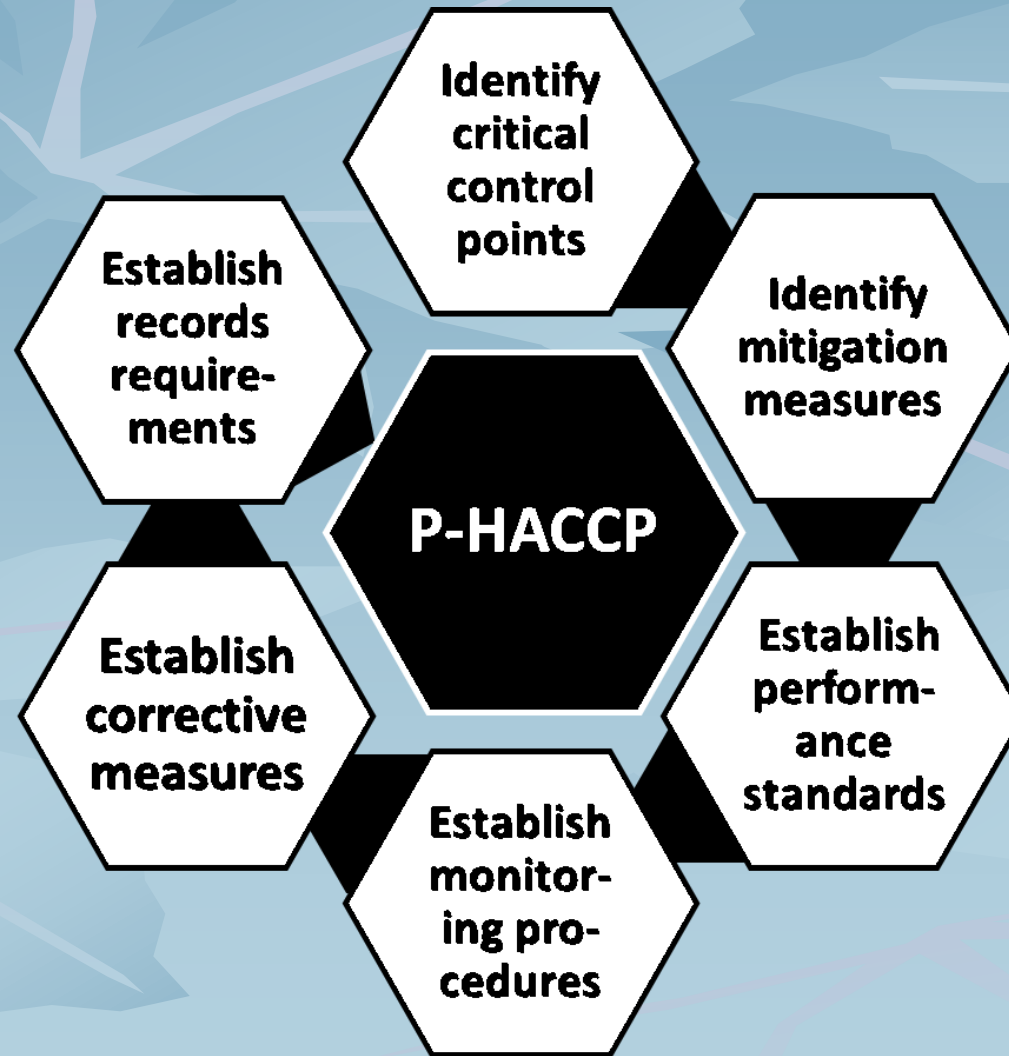


# Constructing Systems Approaches

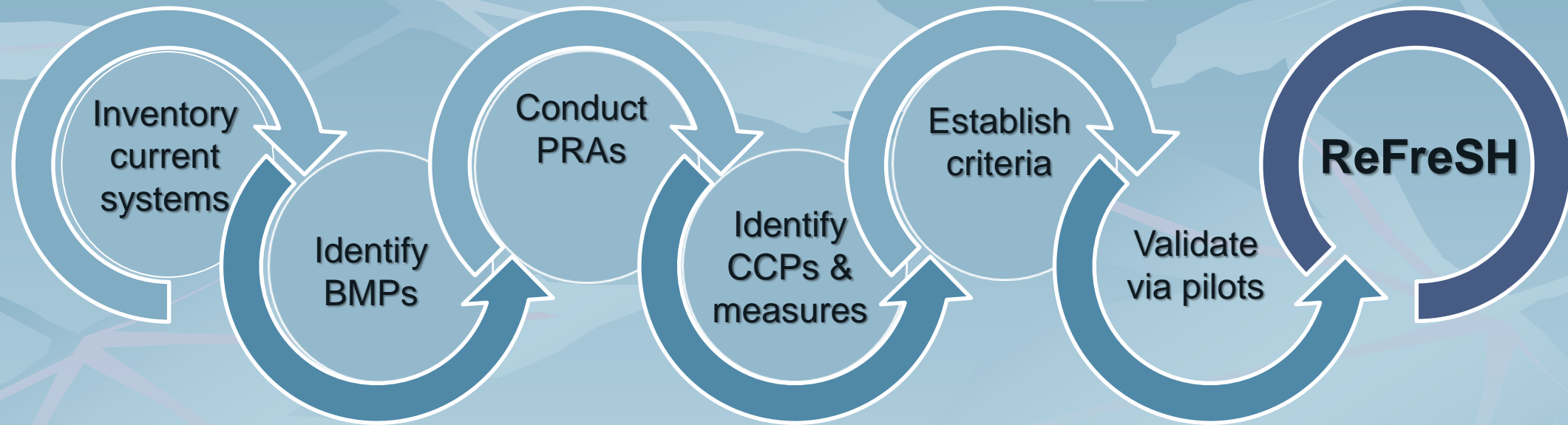
- Combination measures
  - Combine existing measures to achieve a qualitative ALP; throw measures together until we're comfortable
- Control point systems
  - Define control points and the efficacy of measures; apply measures to identified control points



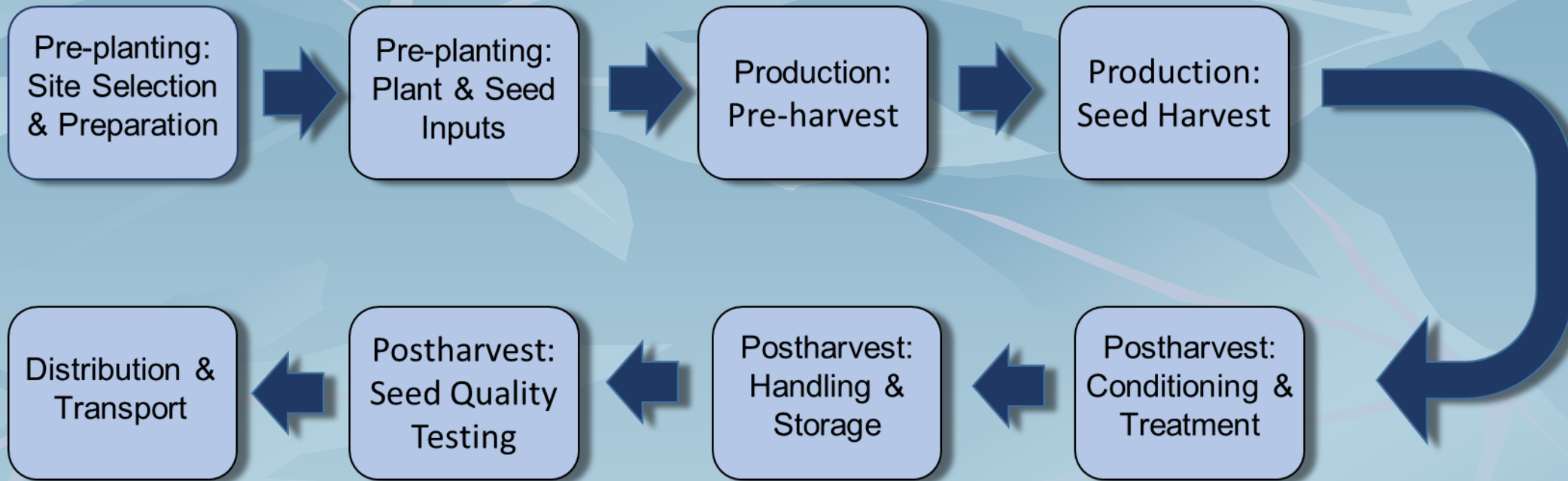
# Designing a P-HACCP System



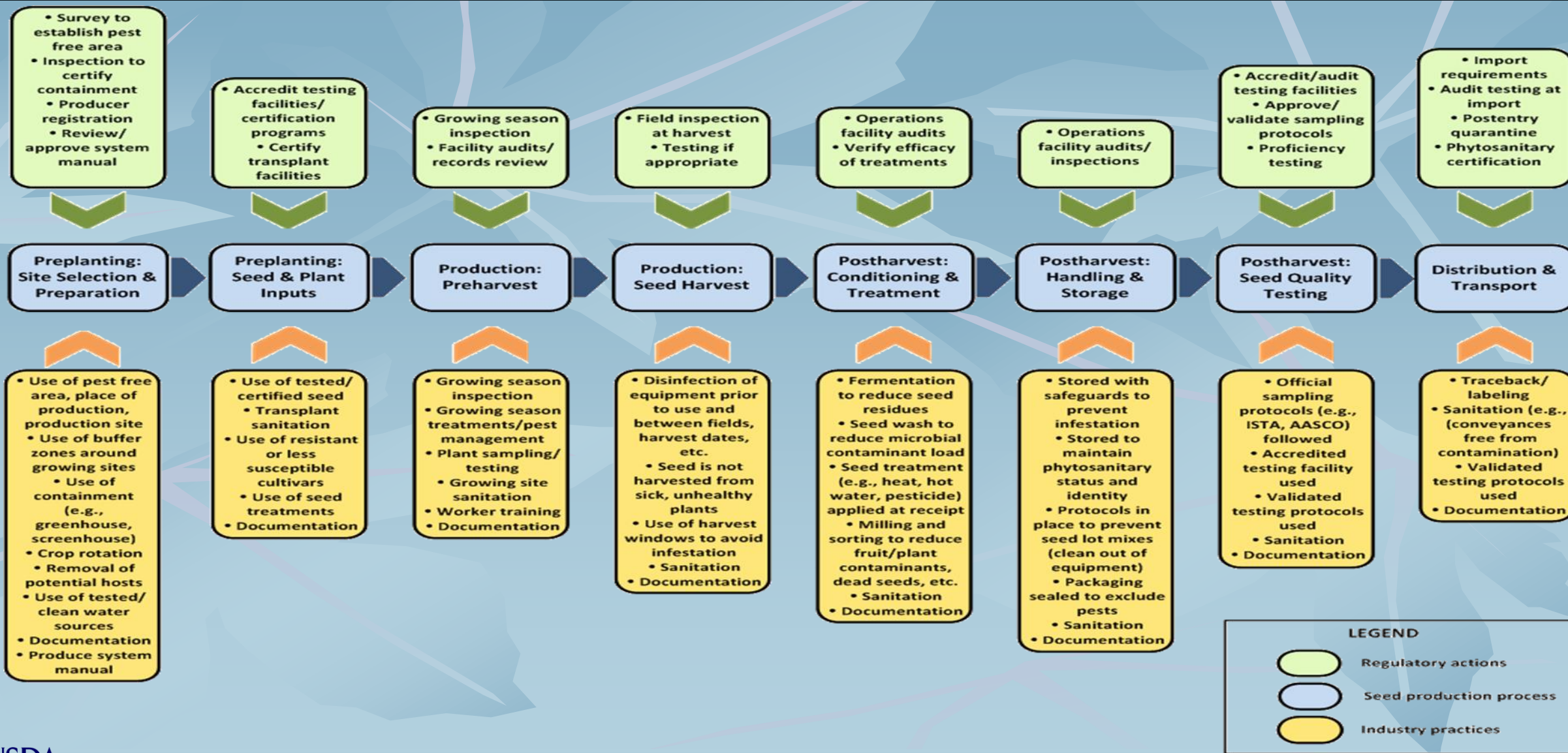
# Building ReFreSH



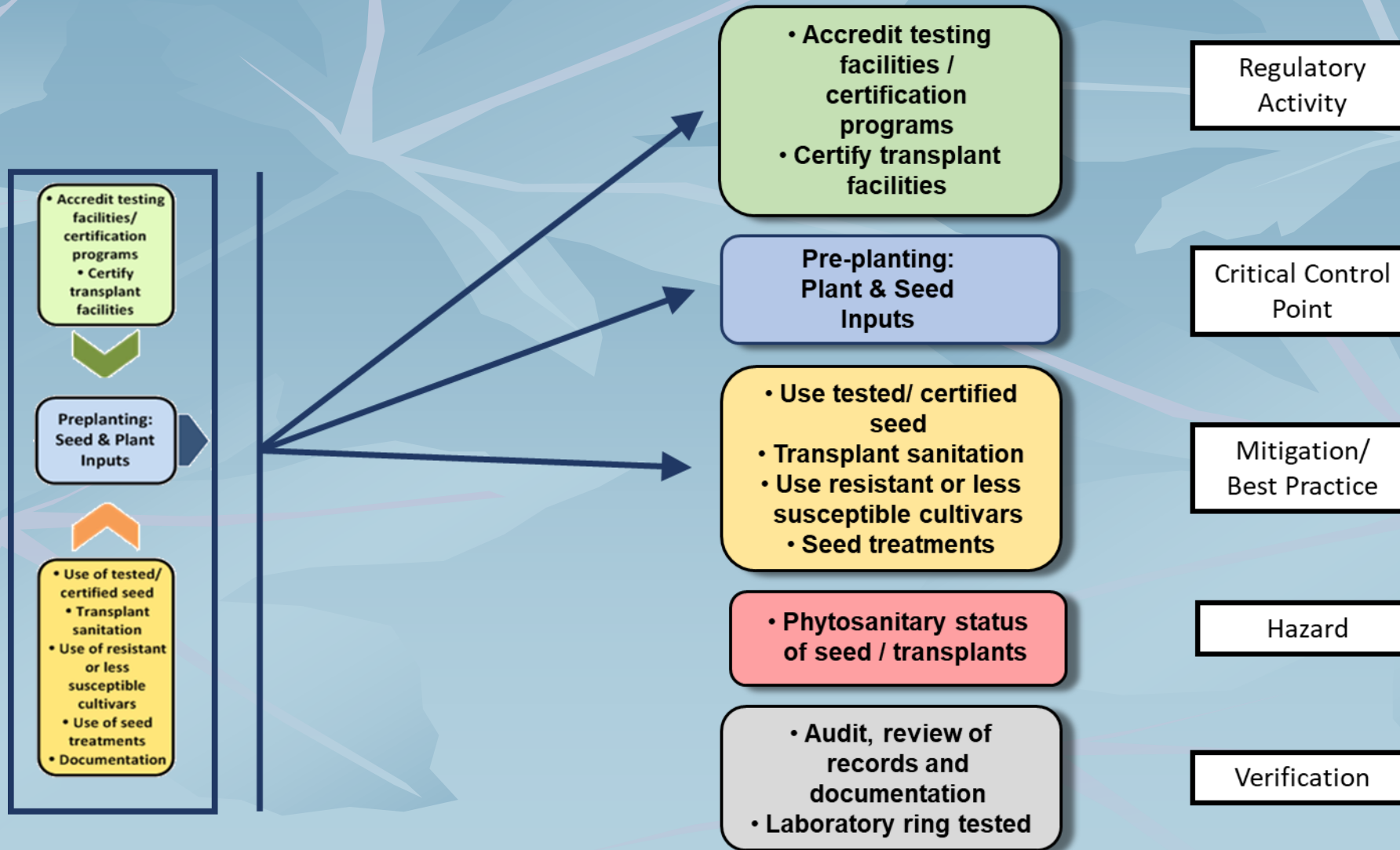
# Critical Control Points



# ReFreSH Model



# A Closer Look





# ReFreSH Accreditation Standard: Scope

- Describes essential elements of ReFreSH
- Outlines the responsibilities of all participants in the ReFreSH Program



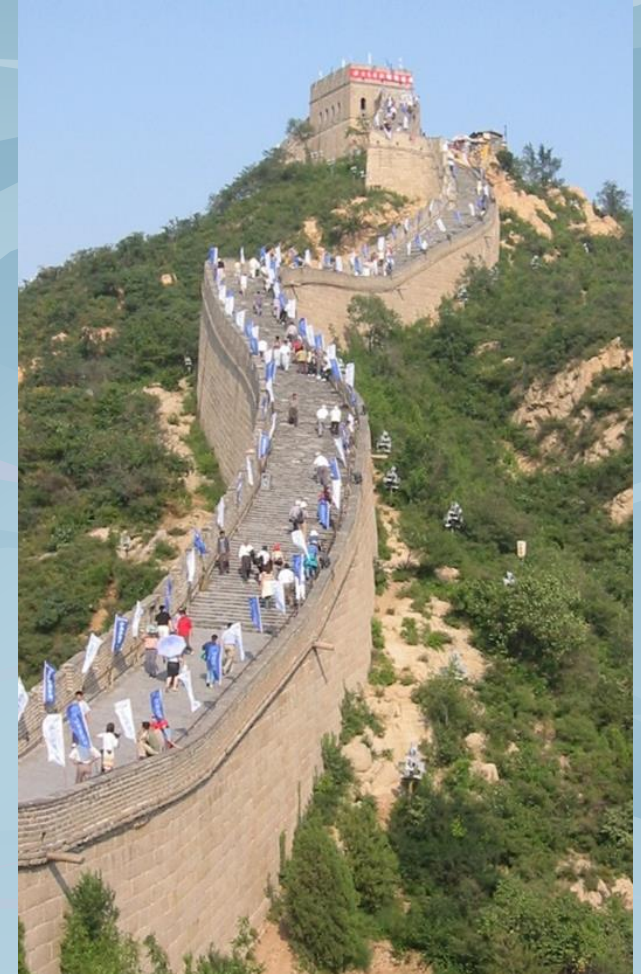
# ReFreSH Accreditation Standard

- Application and Enrollment in ReFreSH
- Participating Entity Responsibilities
- Authorizing NPPO Responsibilities
- Non-conformance and Corrective Measures

**DRAFT**

# Next Steps

- Finalize ReFreSH accreditation standard
- Develop ReFreSH manual
- Explore ReFreSH pilots
  - Cucurbit small lots of seed/CGMMV
  - Quads countries Seed Health WG



# Beyond ReFreSH

Simultaneous efforts across the globe

- U.S.:
  - ReFreSH
- Australia:
  - Global Integrated System of Seed Production
- ISF:
  - Systems Approach Working Group /  
Disease Prevention Program
- France:
  - PGRP



# Beyond ReFreSH

Significant international meetings on systems approaches

- ISF Systems Approach Chatham House Rule Meeting
  - Rome, April 2018
  - Participants: One NPPO representative, one national seed association representative from each country
  - Countries: Australia, Chile, Netherlands, South Africa, U.S.

Australia DAWR International Clean Seeds Pathway

- Brisbane, June 2018
- Participants: NPPO and industry representatives from at least 10 countries from Europe, the Americas, Asia and Oceania

# International “consensus”

“Consensus” opinion from these international meetings on use of systems approaches.

- Recognizing industry practices as part of a Systems Approach as an alternative to current consignment based approaches is beneficial.
- Desire to create a global, multilaterally accepted and implemented Systems Approach



# International “consensus”

“Consensus” opinion from these international meetings on use of systems approaches.

- Shift current focus of consignment by consignment inspection and testing to a system where accreditation of production processes forms the basis for phytosanitary certification
- Accommodate all seed sectors (vegetable, cereal, row crop, farm and lawn, flower) and all sizes of companies



# International “consensus”

Next steps:

- Most viable path to multilateral acceptance is through the IPPC probably as ISPM 38 annex
- As ReFreSH most developed, it can serve as model and NAPPO logical choice to sponsor IPPC proposal





# Questions?

EΥΧΑΡΙΣΤΩ TÄNAN HYALA GRACIAS DZIĘKUJĘ  
GRAZIE ありがとう TACK  
MERCİ  
**THANK YOU** DIAKUIU  
PALDIES  
ACIU TACK DANKE DANK U WEL ДЗЯКУЮ  
СПАСИБО 谢谢 OBRIGADO diolch KIITOS  
TESEKKUR EDERIM