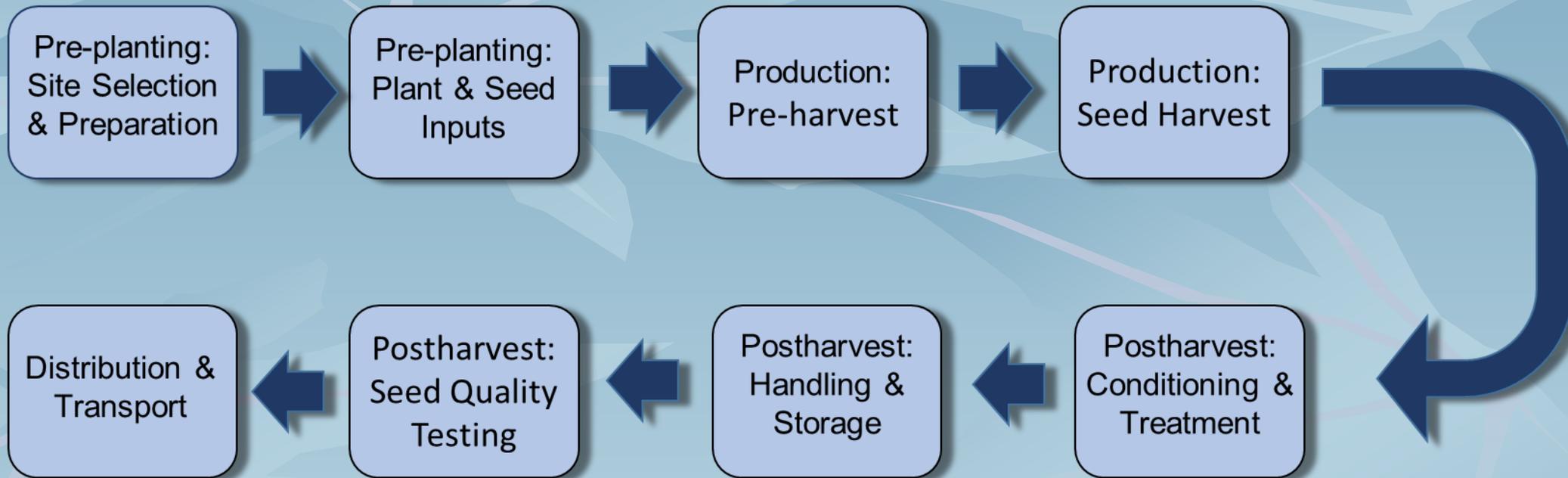# Critical Control Points

ReFreSH Model

Regulatory actions (top row, green):

- Survey to establish pest free area
- Inspection to certify containment
- Producer registration
- Review/ approve system manual

- Accredit testing facilities/ certification programs
- Certify transplant facilities

- Growing season inspection
- Facility audits/ records review

- Field inspection at harvest
- Testing if appropriate

- Operations facility audits
- Verify efficacy of treatments

- Operations facility audits/ inspections

- Accredit/audit testing facilities
- Approve/ validate sampling protocols
- Proficiency testing

- Import requirements
- Audit testing at import
- Postentry quarantine
- Phytosanitary certification

Seed production process (middle row, blue):

Preplanting: Site Selection & Preparation → Preplanting: Seed & Plant Inputs → Production: Preharvest → Production: Seed Harvest → Postharvest: Conditioning & Treatment → Postharvest: Handling & Storage → Postharvest: Seed Quality Testing → Distribution & Transport

Industry practices (bottom row, yellow):

- Use of pest free area, place of production, production site
- Use of buffer zones around growing sites
- Use of containment (e.g., greenhouse, screenhouse)
- Crop rotation
- Removal of potential hosts
- Use of tested/ clean water sources
- Documentation
- Produce system manual

- Use of tested/ certified seed
- Transplant sanitation
- Use of resistant or less susceptible cultivars
- Use of seed treatments
- Documentation

- Growing season inspection
- Growing season treatments/pest management
- Plant sampling/ testing
- Growing site sanitation
- Worker training
- Documentation

- Disinfection of equipment prior to use and between fields, harvest dates, etc.
- Seed is not harvested from sick, unhealthy plants
- Use of harvest windows to avoid infestation
- Sanitation
- Documentation

- Fermentation to reduce seed residues
- Seed wash to reduce microbial contaminant load
- Seed treatment (e.g., heat, hot water, pesticide) applied at receipt
- Milling and sorting to reduce fruit/plant contaminants, dead seeds, etc.
- Sanitation
- Documentation

- Stored with safeguards to prevent infestation
- Stored to maintain phytosanitary status and identity
- Protocols in place to prevent seed lot mixes (clean out of equipment)
- Packaging sealed to exclude pests
- Sanitation
- Documentation

- Official sampling protocols (e.g., ISTA, AASCO) followed
- Accredited testing facility used
- Validated testing protocols used
- Sanitation
- Documentation

- Traceback/ labeling
- Sanitation (e.g., conveyances free from contamination)
- Validated testing protocols used
- Documentation

LEGEND
- Regulatory actions
- Seed production process
- Industry practices

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