

***WIFSS DHS-Certified  
National Training Program  
to Enhance Food Security and Defense***

*presentation*

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**New Realities  
Driving Today's Food Systems**

**Population Growth**

**GLOBALIZATION**

**Travel**

**Immigration, Labor or Displacement**

**Trade**

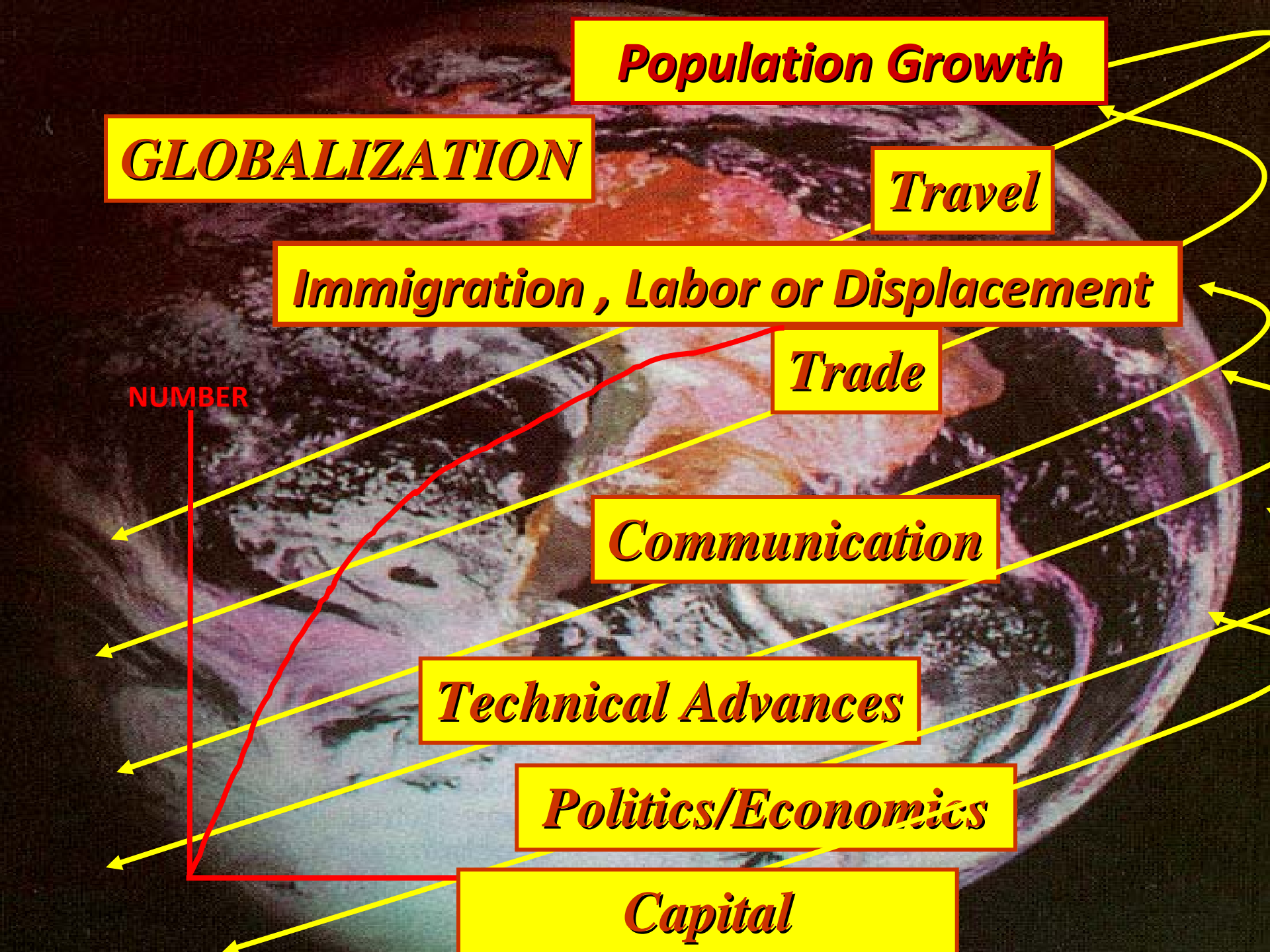
NUMBER

**Communication**

**Technical Advances**

**Politics/Economics**

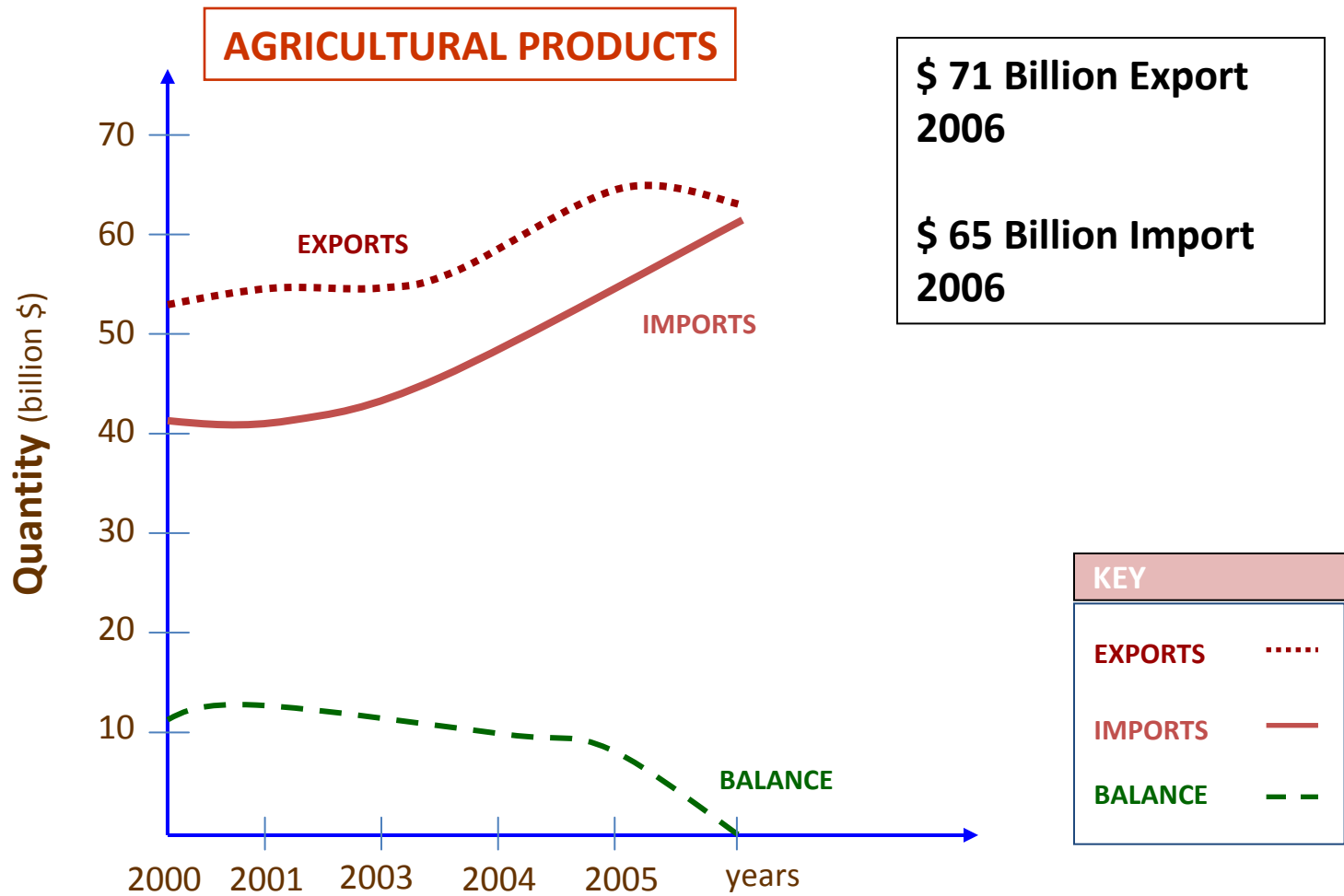
**Capital**



**New realities that are driving much of today's food systems and ---  
increasing its vulnerability:**

- **Increasing Population**
- **Globalization**
- **Urbanization**
- **Specialization**
- **Centralization/Concentration**
- **Open System**
- **Changing and Complex**

# US Agricultural Trade, billion \$



# ***WIFSS Homeland Security Training***

## **“Training to Enhance Prevention, Deterrence, Response and Recovery from WMD Incidents” 2004**

**\$4.7 million, 2 years**

**DHS Training Division Competitive Grant Funding**

**Only DHS-certified, comprehensive, Agroterrorism Preparedness Curriculum**

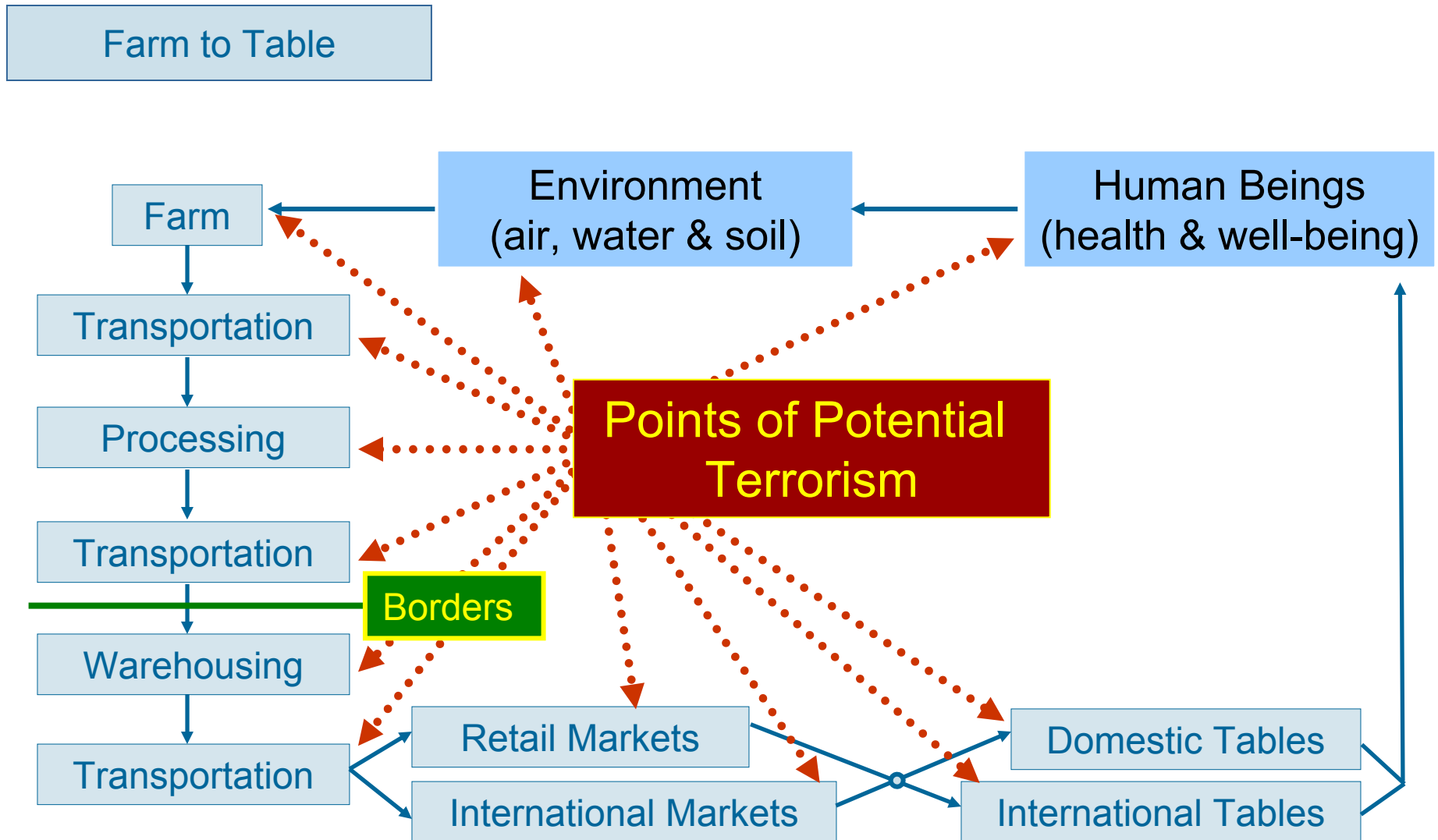
### **New Funding (2007 – 2008)**

- Continuation funding from DHS (\$700,000, emphasis on nationwide training)
  - Subcontract with Eastern Kentucky University (\$250,000, part of their \$11 million)
  - Contract with Food & Drug Administration (\$300,000/year for three years, emphasis on training feed and food regulatory agencies to form teams with FDA to develop response teams).
    - GOHS funds to finish training in California communities
- Pending:**
- CDFA/GOHS Exploration of risks at California land, sea, and air, ports

# Overall WIFSS Curriculum Goal

- Help communities prepare teams of frontline responders for agroterrorism or food systems incidents
- Prepared to prevent/mitigate, detect, respond to, and recover from terrorist attacks on the food system
- *Comprehensive, All-Hazards Approach*
  - *Agroterrorism event*
  - *Food systems disaster*
  - *Food/water disruption in natural disasters*

# *A new* food continuum





# Agroterrorism

- Many different plant or animal pathogens can cause damage or loss of production
- Some pathogens cause disease (death) in both humans and animals (zoonotic diseases)
- Food or water can carry diseases, poisons and toxins to people, causing illness or death
- All agroterrorism will cause
  - significant psychological impact
  - economic disruption

# Biological

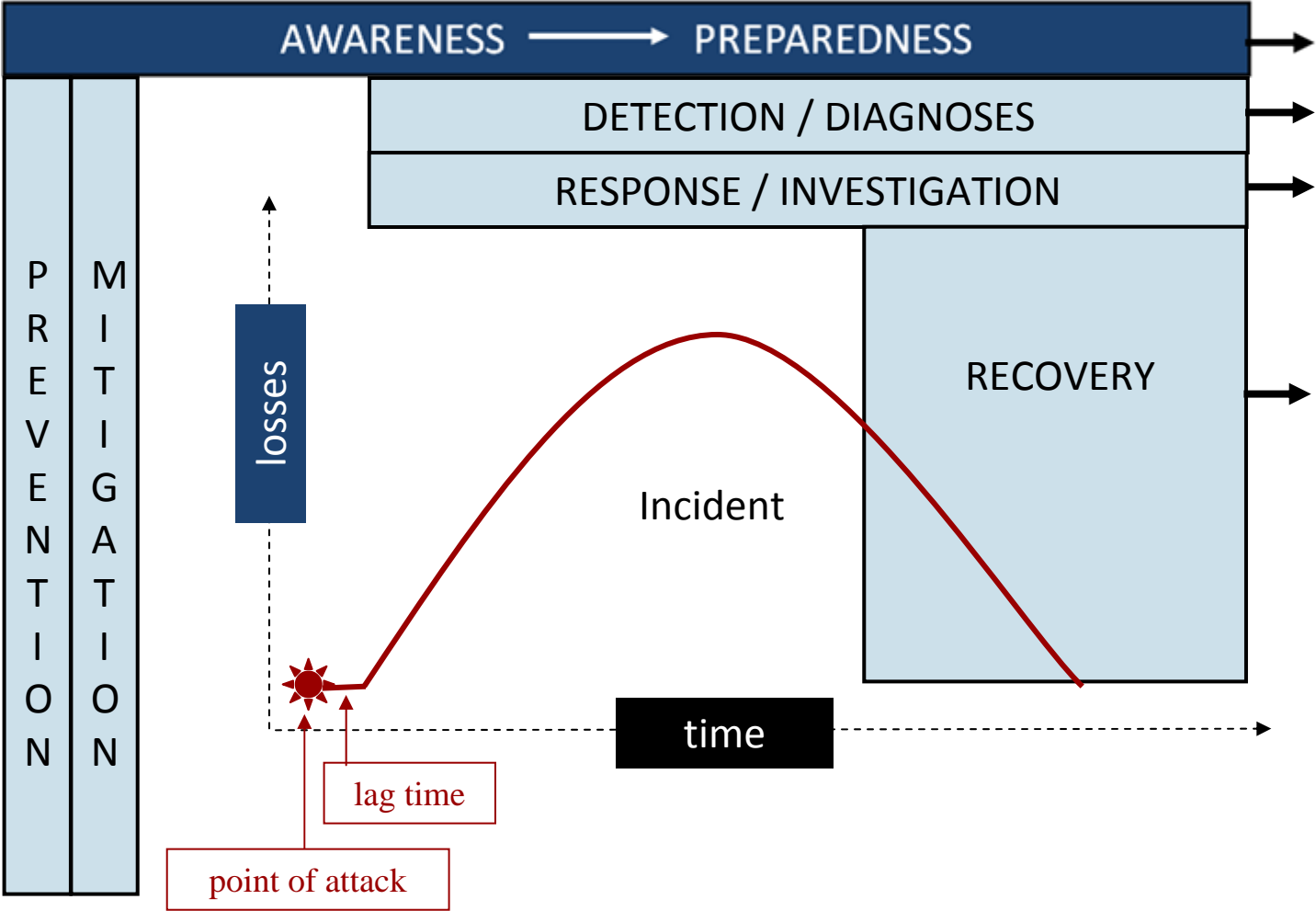
- Prions (mad cow disease or Bovine Spongiform Encephalopathy (BSE))
- Bacterial pathogens
- Viral pathogens
- Fungal pathogens
- Parasitic pathogens
- Biologically produced toxins
- Genetically modified organisms

# CDC Category A Agents

- Anthrax (*Bacillus anthracis*)
- Botulism (*Clostridium botulinum* toxin)
- Plague (*Yersinia pestis*)
- Smallpox (*Variola major*)
- Tularemia (*Francisella tularensis*)
- Viral hemorrhagic fevers (Ebola, Marburg, Lassa, Machupo)

*Anthrax, tularemia, plague and botulinum toxin are especially well suited for use in agroterrorism.*

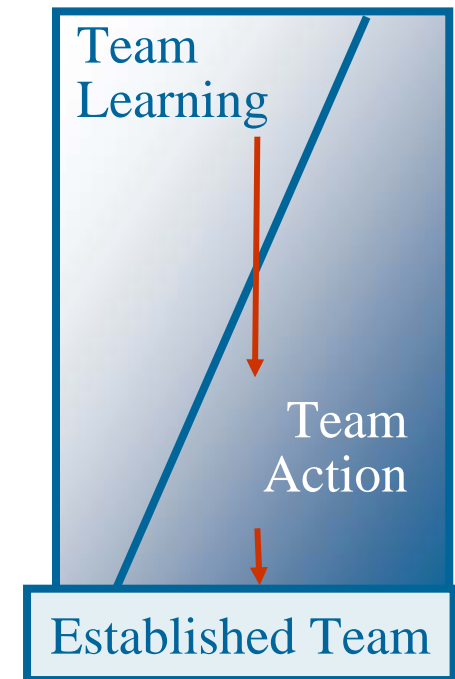
# The Steps to Preparedness



# WIFSS Agroterrorism Preparedness Curriculum for Frontline Responders

## Courses:

- *Understanding the Dangers*
- *Principles of Preparedness*
- *Principles of Detection and Diagnosis*
- *Principles of NIMS, Team Building and Risk Communication*
- *Principles of Frontline Response*
- *Principles of Recovery*

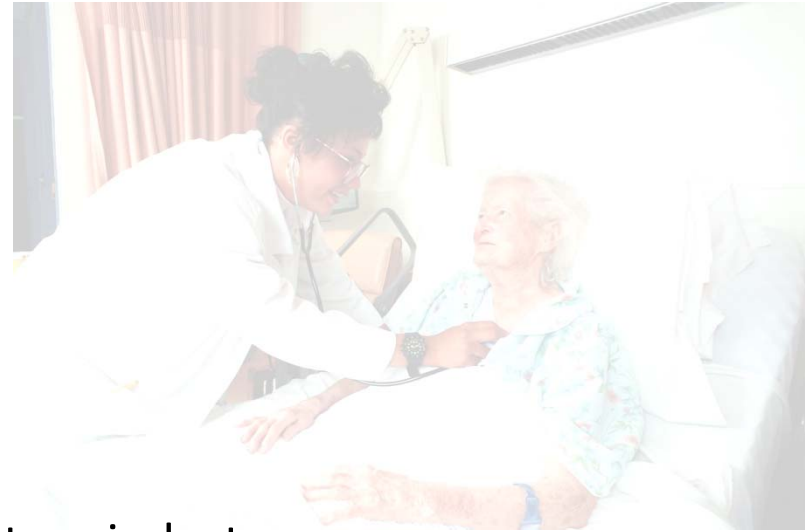


# WIFSS Curriculum, *cont.*

- **Enrichment Courses**—a series of courses to enhance depth of knowledge and capacity in specific areas:
  - *Threats of Foreign Animal and Plant Diseases*
  - *Risk Assessment Tools for Communities*
  - *Foot and Mouth Disease*
  - *Understanding the Food Systems and How They Work*
  - *Avian Influenza*
  - *Building Teams Across Disciplines*
  - Others as required
- ✓ **Performance testing exercises**

# Frontline Responders

- Includes community members:
  - Local emergency teams
  - Law enforcement
  - Fire services
  - Hazmat
  - Representatives of the food and agriculture industry
  - Community leaders (private and public)
  - Local public/environmental health groups
  - Local political leadership and designated agencies
  - Designated communication authorities/agencies
  - Education leaders
  - Health care providers (physicians, veterinarians, others)
- **Everyone with a legitimate role in agroterrorism response**



# Emphasis on Frontline Responders Training and Connection

Training takes place locally, but emphasizes integration with state and federal emergency response systems





# California Agriculture



- Led the nation in agricultural production for more than 50 yrs
- Largest provider of milk and dairy products (22 states & 60% of cheese)
- More than 60% of fruits, nuts and vegetables
- Several fruits and vegetables are grown only in California
- Gross agriculture cash income (\$29 billion/year) exceeds the income of number 2 (Texas) and number 3 (Iowa), combined
- Eight of the 10 top agriculture counties in USA are in the Central Valley of California
- Leads the nation in agricultural exports (\$6.5 billion/yr)
- Sea, land and air ports lead the nation in food-imports

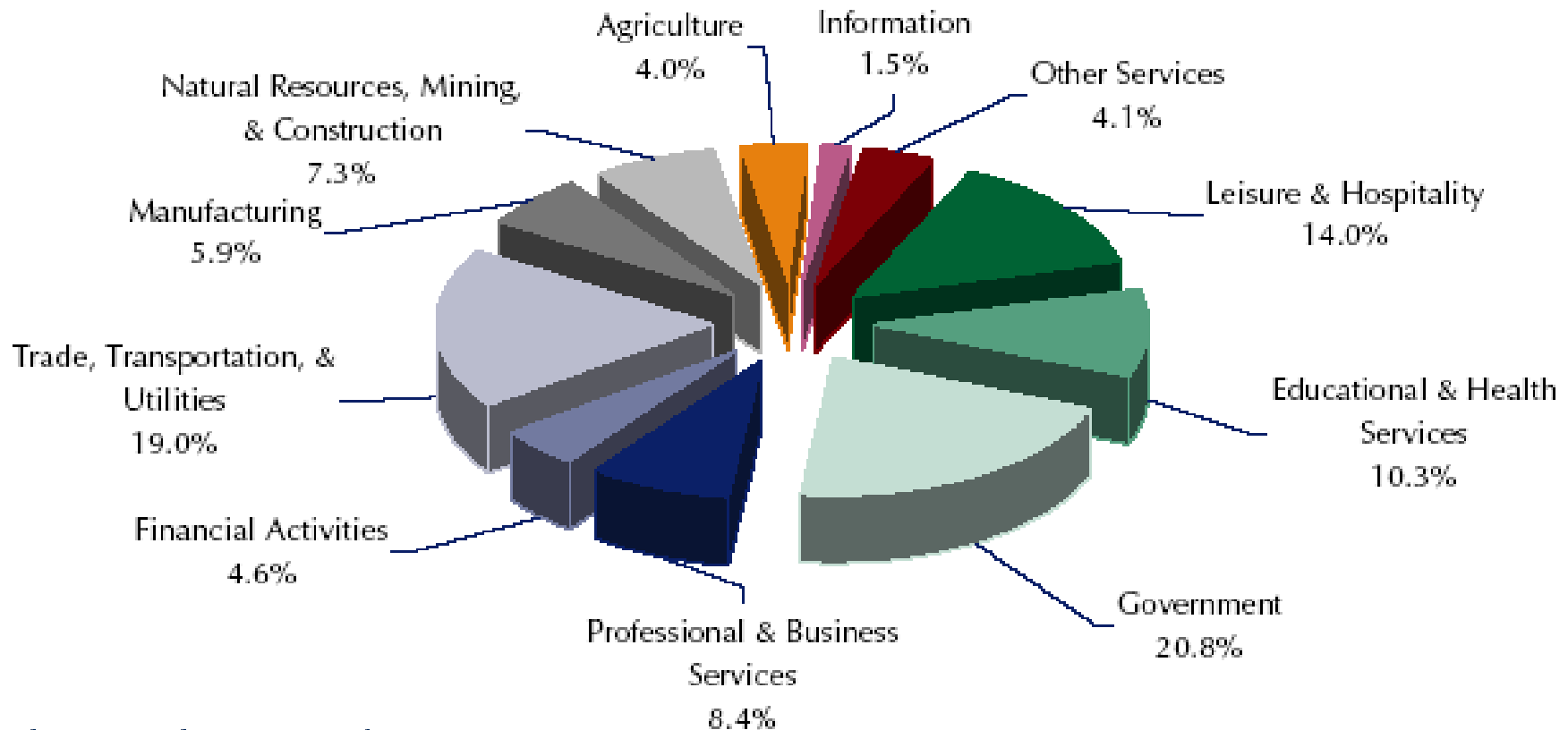
# San Luis Obispo County Agriculture

Commodity	Value
Wine Grapes	\$ 194,373,000
Cattle and Calves	53,071,000
Broccoli	50,062,000
Vegetable Transplants	30,178,000
Strawberries	29,367,000
Cut Flowers	28,240,000
Indoor Decoratives	25,168,000
Head Lettuce	23,178,000
Oriental Vegetables	15,741,000
Leaf Lettuce	14,755,000
<b>GRAND TOTAL</b>	<b>\$ 596,753,000</b>
(All Crops)	



# San Luis Obispo County Agriculture

**San Luis Obispo County Employment by Industry  
2005 Annual Average**



**2005 Industry Employment total: 104,800**

# WIFSS Agroterrorism Preparedness Curriculum County/Community Training

- Alameda
- Butte
- Contra Costa
- El Dorado
- Fresno
- Glenn
- Humboldt
- Imperial
- Inyo
- Kern
- Kings
- Lake
- Lassen
- Marin
- Mendocino
- Modoc
- Mono
- Monterey
- Orange
- Sacramento
- San Benito
- San Diego
- San Joaquin
- San Luis Obispo
- San Mateo
- Santa Clara
- Shasta
- Sonoma
- Sutter
- Stanislaus
- Tehama
- Tulare
- Yolo

# WIFSS Curriculum Training, *cont.*

## Other States:

- Arizona
- Connecticut
- Illinois
- Iowa
- Michigan
- Nevada
- New Mexico
- New York
- North Carolina
- Oregon
- Washington
- Wisconsin

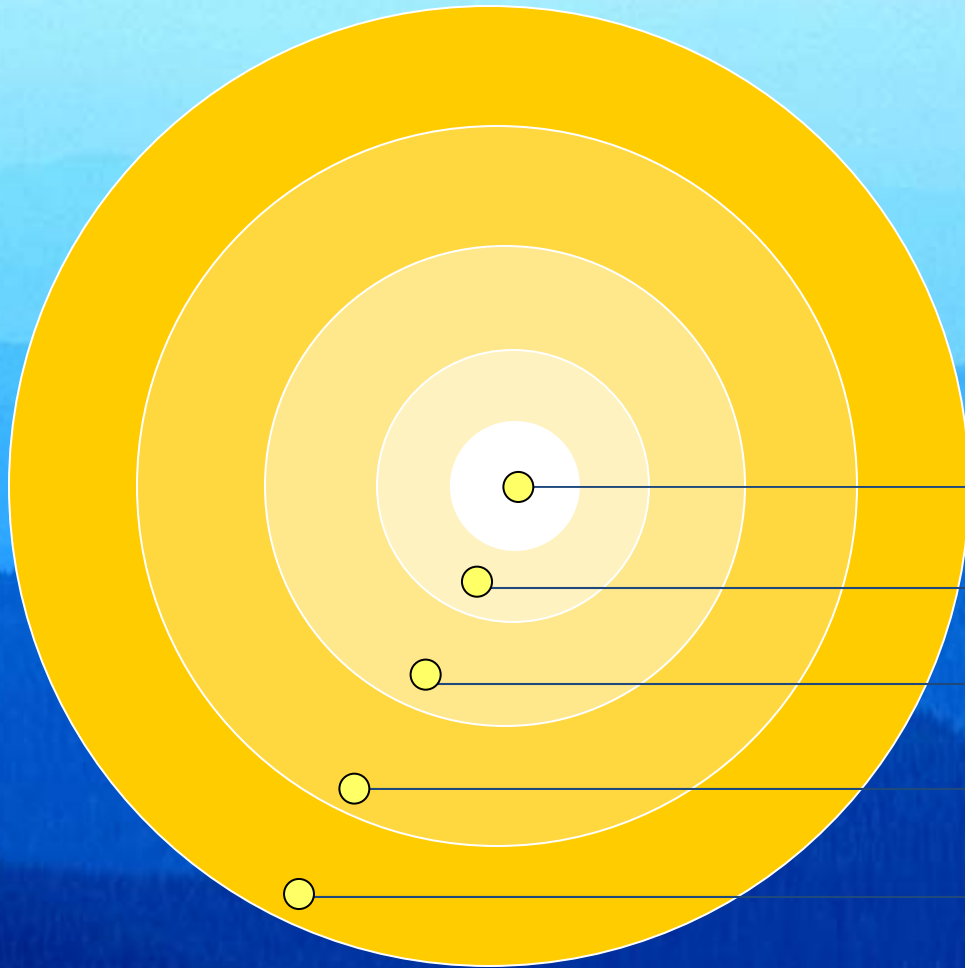
## Supplemental lectures/exercises:

### EXAMPLES:

- State emergency response teams
- Food system associations
  - Commodity groups
  - Grocery associations
  - Restaurant associations
- Specific food/agriculture companies
- Governmental agencies
- Civic organizations
- Port authorities and companies
- Educational entities/associations







**Individual**

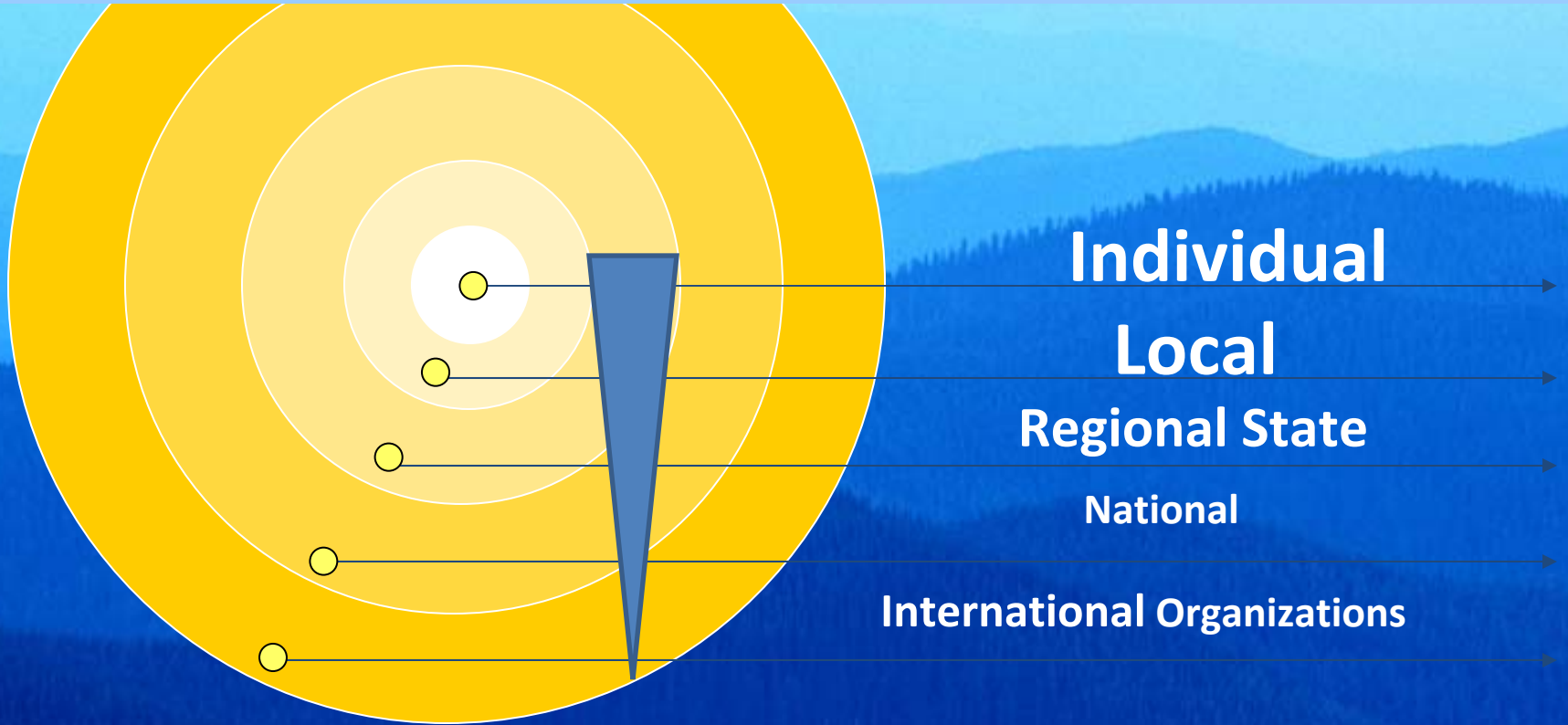
**Local**

**Regional State**

**National**

**International Organizations**

**In high-production states (e.g., California); the vital early response will need to be by individuals and local organizations. Coordination with state and federal agencies will follow.**





**DIVERSITY**

**RESOURCE ADEQUACY**

**CHANGE**

**FOOD SAFETY & DEFENSE**

**COMPLEXITY**

**GLOBAL**

**EXPOSED**

**SUFFICIENCY**

**AFFORDABILITY**





# Thank you!

Questions?

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