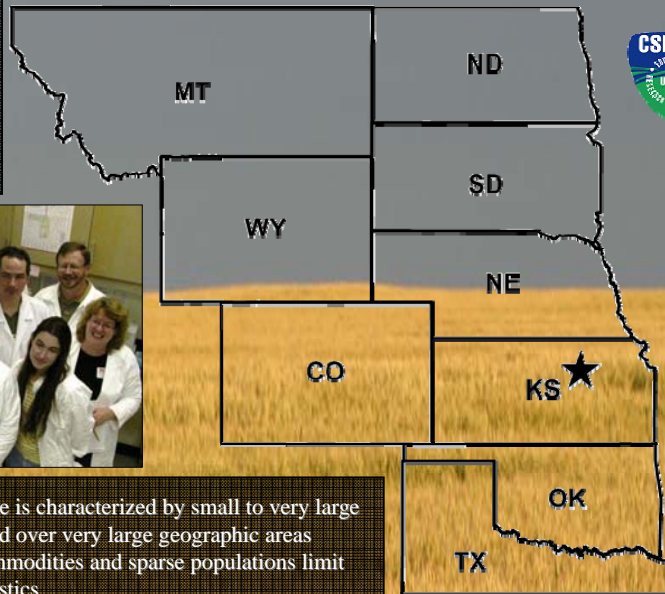


# GPDN

## Great Plains Diagnostic Network

### GPDN Members

- Colorado State University
- Kansas State University
- Montana State University
- North Dakota State University
- Oklahoma State University
- South Dakota State University
- Texas A&M University
- University of Nebraska
- University of Wyoming

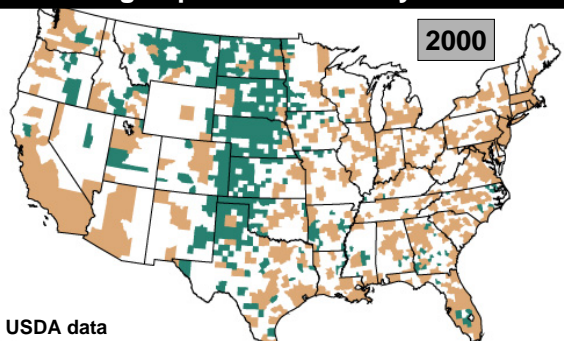


In 2005, there were 554,900 farms in the Great Plains region covering 70 million hectares. Major crops in the region include wheat, corn, soybean, sorghum, millet, sunflower, potato, dry beans; a variety of specialty crops include grass seed, chickpea and onion. Natural introductions of pathogens and insects are facilitated by weather fronts from all directions. Accidental introductions result from large-scale transportation of agricultural products and the movement of farm workers and equipment across the Great Plains. Plant and animal-based agricultural systems are intricately linked.



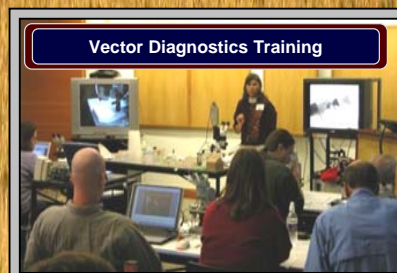
The Great Plains is the largest region of the U.S. where agriculture is the primary driving force of the economy.

### Farming-dependent economy



Non-farming dependent economy

- Great Plains agriculture is characterized by small to very large farms and ranches spread over very large geographic areas
- Low profit margin commodities and sparse populations limit support for plant diagnostics
- GPDN has revitalized these programs in every GPDN state



### Diagnostics



## GPDN Accomplishments

- All GPDN state labs are equipped with web-enabled microscopy
- Developed 'Guide to Videoconferencing'
- GPDN Regional Diagnostic Workshops Convened
  - 2004 PCR Workshop (Amarillo, TX)
  - 2005 Virus-Vector Workshop for pathologists and entomologists (Bozeman, MT)
  - 2006 Mycotoxin Workshop (On-line using Macromedia Breeze and web-enabled microscopy technology)
  - 2007 Ornamentals Diagnostics Workshop (GPDN will host in April, Fort Collins, CO)
- GPDN 'Regional' training and education committee develops SOP's for regional pests of concern
- GPDN Regional Center Lab participated in USDA ARS ring test to validate new diagnostic protocol for Asian soybean rust
- GPDN Regional Center Lab is participating in USDA APHIS *Phytophthora ramorum* blight lab accreditation pilot program
- GPDN Regional Center Lab serves as resource lab to APHIS expert labs for surge capacity during outbreaks

### GPDN First Detector Program

- Introduction to NPDN mission & structure
- Awareness of high risk pests and pathogens
- Identification of outbreaks
- Effective and timely communication



### First Detector Training & Education

