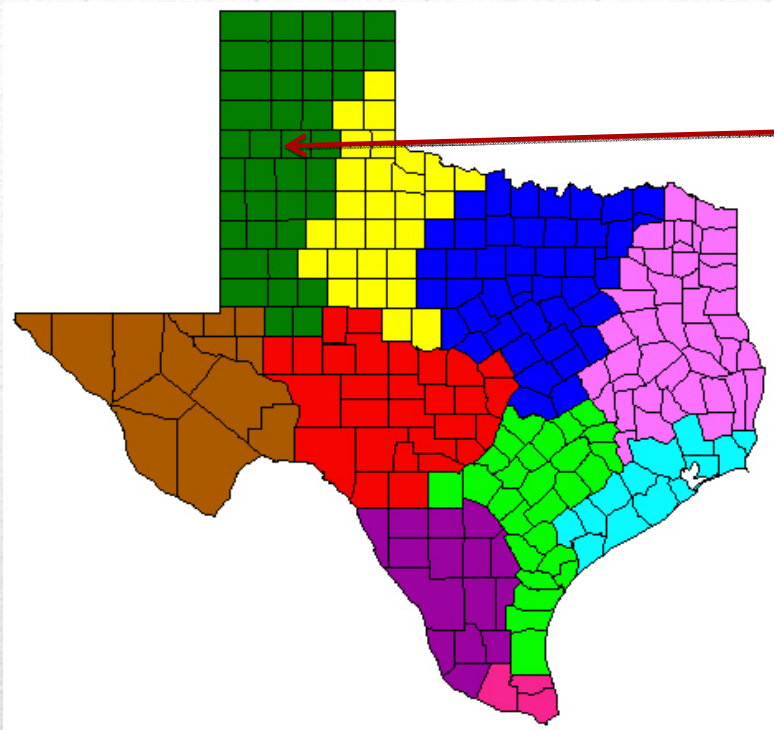


# Cotton on the High Plains

Darren Hudson, Director, Cotton Economics  
Research Institute and Combest Chair of  
Agricultural Competitiveness, Texas Tech



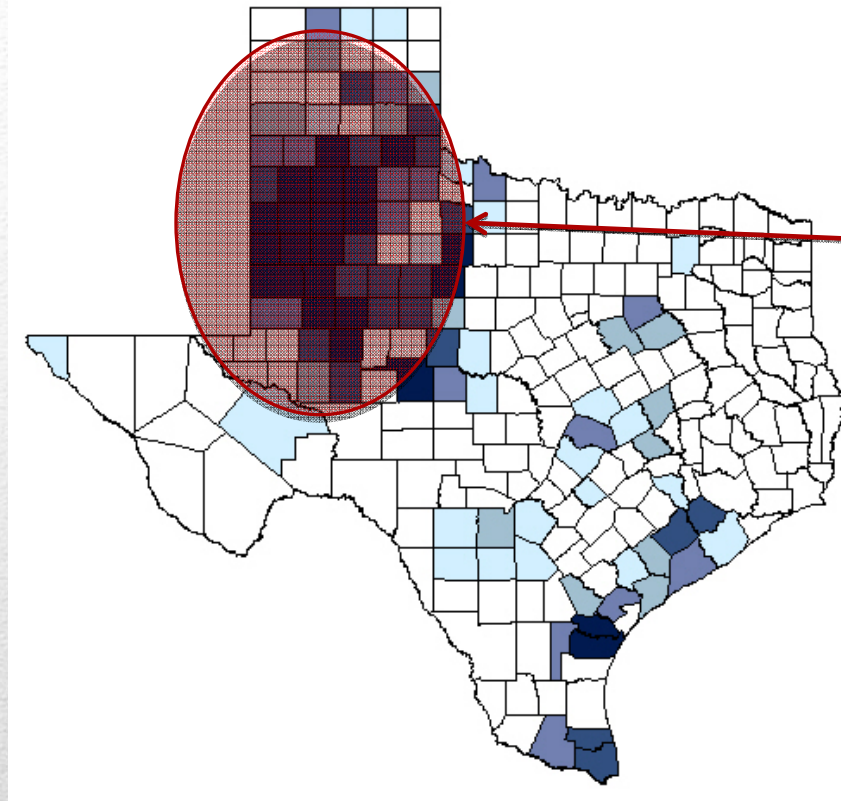
# **BACKGROUND INFORMATION**



The High Plains production region is ranked as the largest production region (in terms of sales) in the state and accounts for approximately 30% of the total value of agricultural production in Texas.

# Regional Perspective

---



The High Plains region accounts for approximately 80% of Texas cotton production which is approximately 50% of U.S. production.

# Regional Cotton Production

---

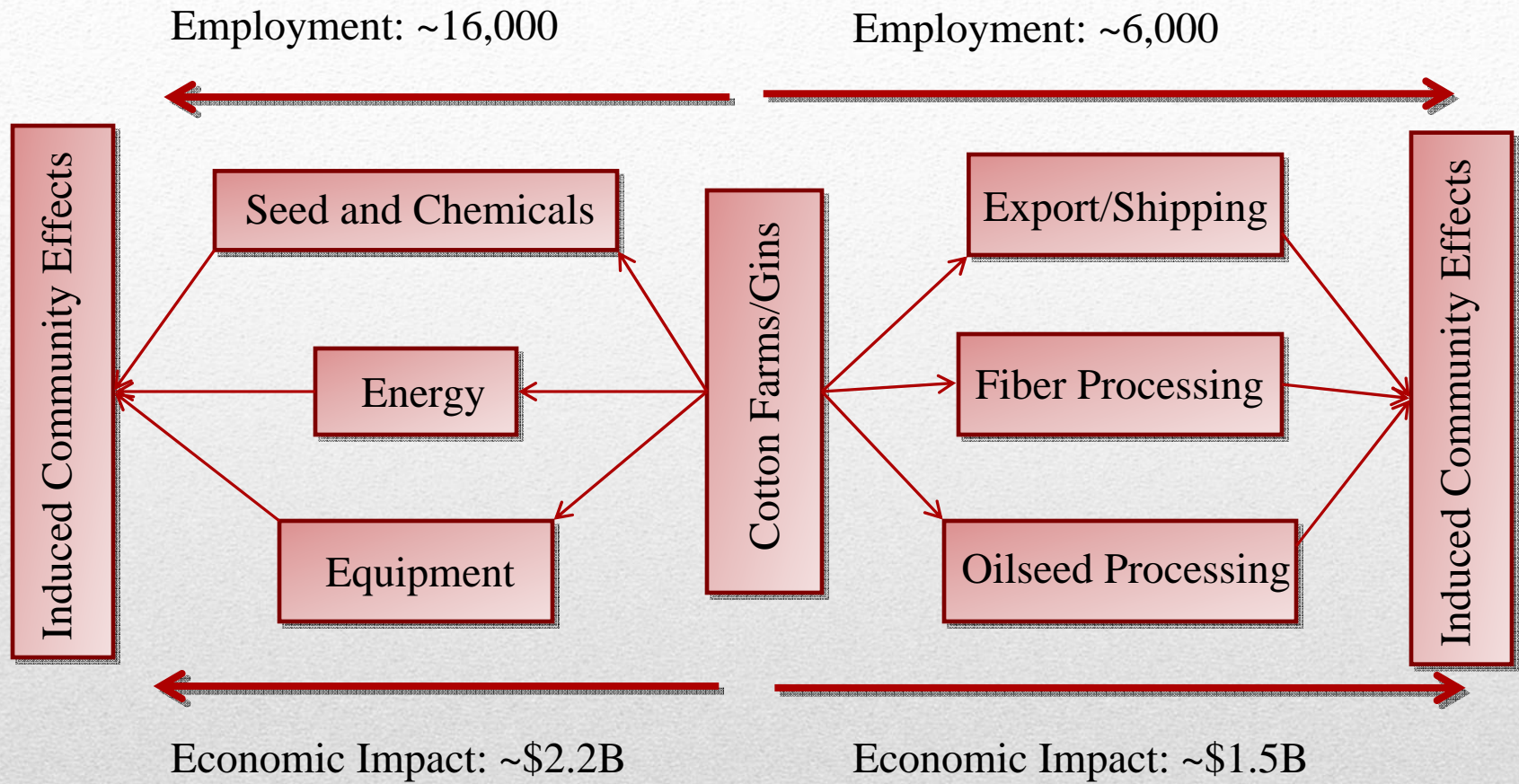


- Region sits on the largest underground aquifer in North America.
- Underground water is used for supplemental irrigation (water is used to supplement rainfall).
- The aquifer is exhaustible and depletion of the aquifer could have substantial impacts on regional agriculture in the future.

# Resource Base

---

# **INDUSTRY ORGANIZATION**



# Supply Chain and Impacts

Note: Source is IMPLAN for 2008; we have observed estimates as high as \$5B total when cotton prices are high like last year.

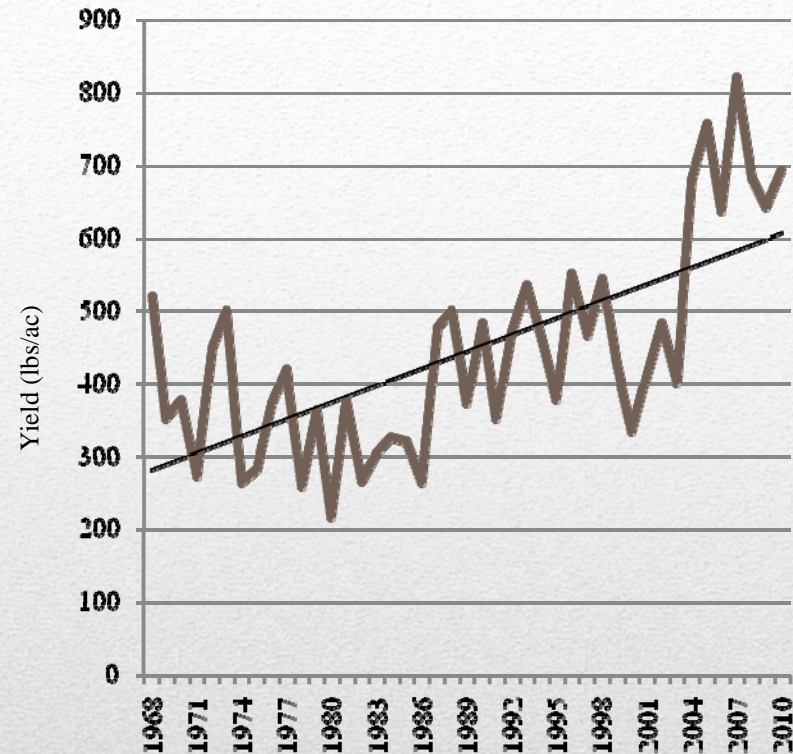
- Cooperative structure highly used
  - Marketing cooperatives like PCCA, including processing
  - Storage cooperatives like FCC
  - Processing cooperatives like PYCO
  - Many cooperative gins
- “Independent” structure viable and competitive
  - Independent gins
  - Marketing pools provided by many merchants
  - Processors and shippers from all major companies

## **Parallel Systems Bring Competition**

---



- Research and development heavily concentrated in the area
- Texas Tech, Texas A&M, USDA-ARS, and private companies like Smartfield, Bayer, Monsanto



South Plains Yields Over Time.

Source: USDA-NASS

# Innovation is the Key

- Supply Side
  - Boll weevil eradication
  - LEPA and then drip irrigation
  - GPS and variable rate application systems
  - Water management technology
  - Varietal and genetically modified seed development
- Demand Side
  - High volume instrument grading (reliability)
  - Varietal development for fiber traits
  - Textile developments

# Key Innovations

---

- Very responsive to market demand
  - Moved from a lower-quality product for lower-valued end goods to a premium quality product on par with California cotton
- Worked diligently to develop export market outlets
- Innovators in information technology
- Leaders in promoting grading technology to improve reliability of U.S. cotton to domestic and foreign users
- Environment

## **Key Regional Success Factors**

---

- Water availability/irrigation
  - Need continued development on drought tolerant varieties
- Finding innovative policy solutions that provide maximum risk protection with less cost to the government
- Keeping cotton competitive with synthetic fibers in a world with shorter stocks and higher prices
  - Continued R&D at the seed and textile levels to improve fiber properties and enhance consumer value
- Operating in a hostile environment for trade policy

# Key Challenges

---

- Cotton forms a critical economic and social backbone for the High Plains economy
  - Major contributor to regional employment and income
- The cotton industry has been innovative in terms of productivity and consumer responsiveness
- The U.S. is not the low-cost producer, but provides extreme value in quality, reliability, and timeliness

# Conclusions

---