



# Pedigreed Seed and Malting Quality

BMBRI Triennial Barley Improvement Meeting

June 23, 2010

Guelph, ON





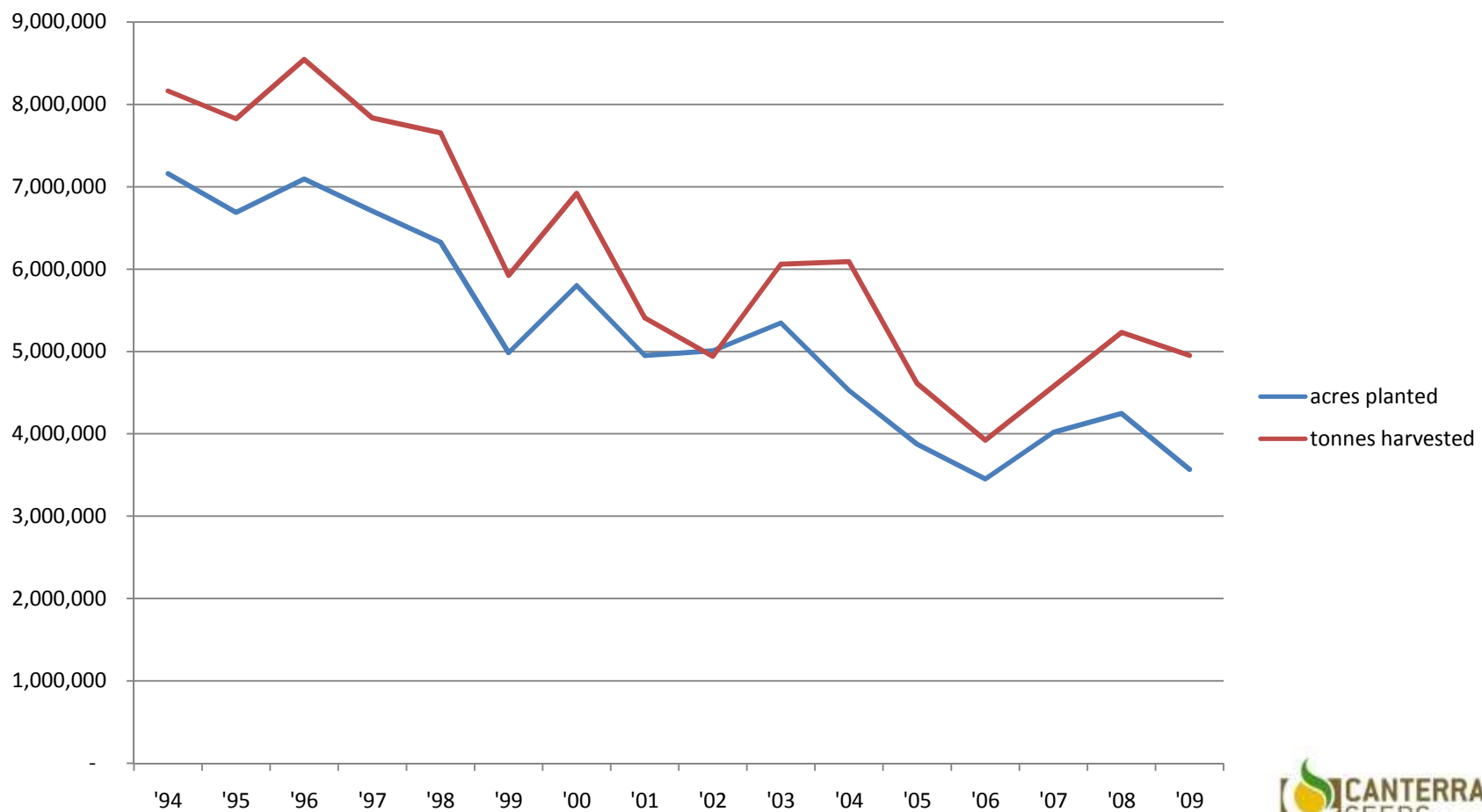
# Canadian Barley Production

Historically:

- Large total barley acres
- High % planted to malting varieties (65-70%)
- Yield gap with feed varieties narrowed
- Large pool of selectable barley
- Large feed industry to absorb unselected barley

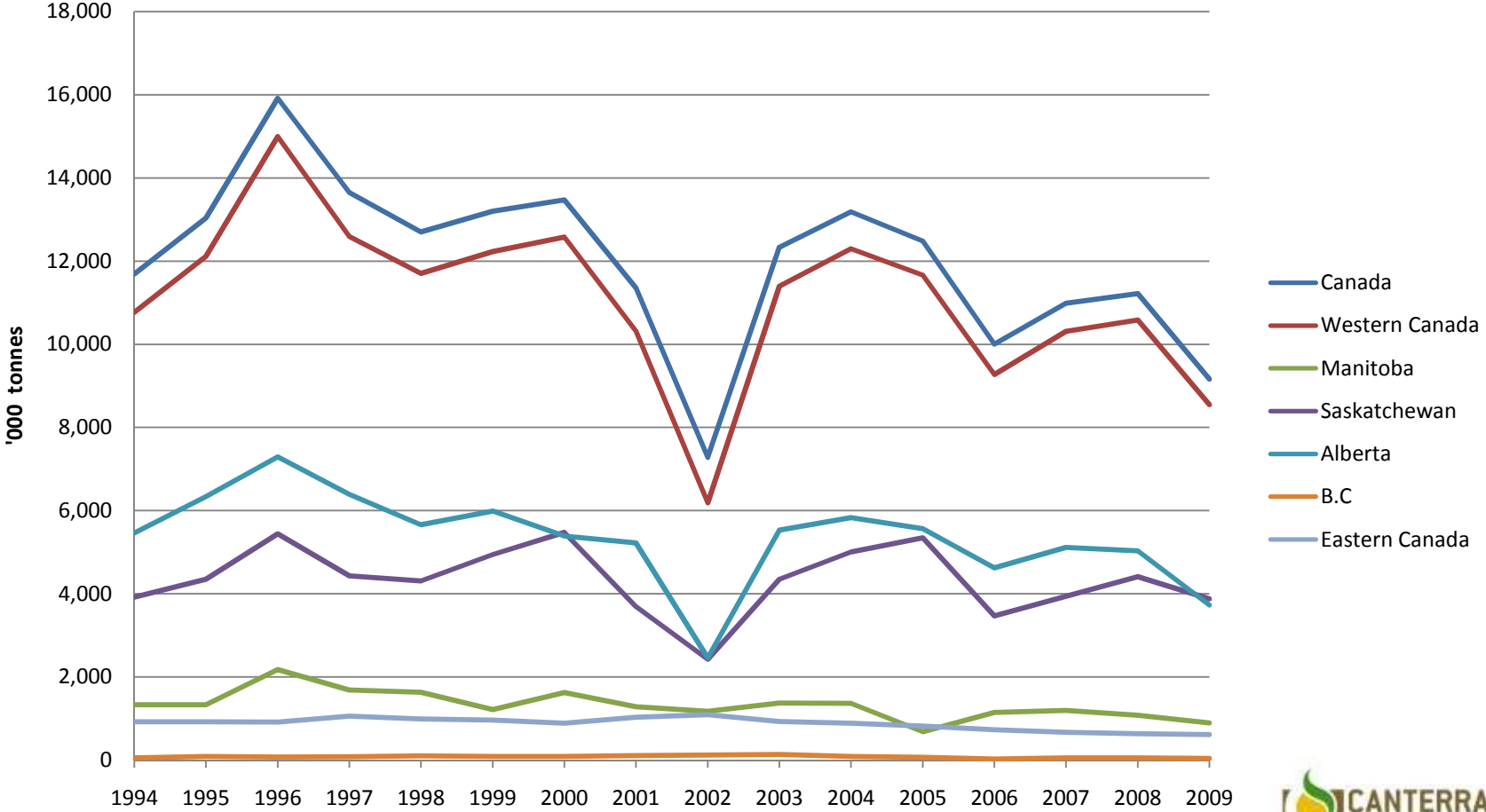


# US Barley Production





# Canadian Barley Production





## Contract Production

- Many malting and brewing companies will arrange for contract production of some of their barley needs
- Want to ensure the best chance of accessing the quality and quantity of key varieties they need
- Identity Preserved (IP) production is another means of sourcing barley



## Use of Certified Seed

- Ensures varietal purity of seed planted
- Ensures physical purity of seed
  - no admixtures
  - avoids potential contamination of crop
- Ensures seed is disease free
- Ensures seed germination is minimum 85%
- Ensures royalties flow back to breeding programs



## Pedigreed Seed

“Seed crop certification is a program of planned production, record keeping, unbiased inspections, and rigid standards to ensure the production of *high quality, variety specific seed.*”

“Certification is a limited generation concept whereby *variety specific characteristics are maintained.* New varieties developed by plant breeders are increased to supply farmers with seed of superior performance.”

CSGA Circular 6 (Italics mine)



## Seed Pedigrees





## Commercialization of malting barley varieties

- Variety development
  - Breeding
  - Screening – agronomy, disease, quality
- Variety registration
  - Co-op trials - agronomy, disease, quality
  - Collab trials – quality
- Plant scale trials
  - minimum 2 years malting and brewing trials
- Commercial acceptance



## Commercial Evaluation

Seed production in crop year	Plant scale trials after crop year
Breeder -> Select	Not enough available
Select -> Foundation	Limited quantities available
Foundation -> Registered	Larger amounts available
Registered -> Certified	Possible demotion of Reg -> Cert
Certified available commercially	Commercial production possible



Thank-you

