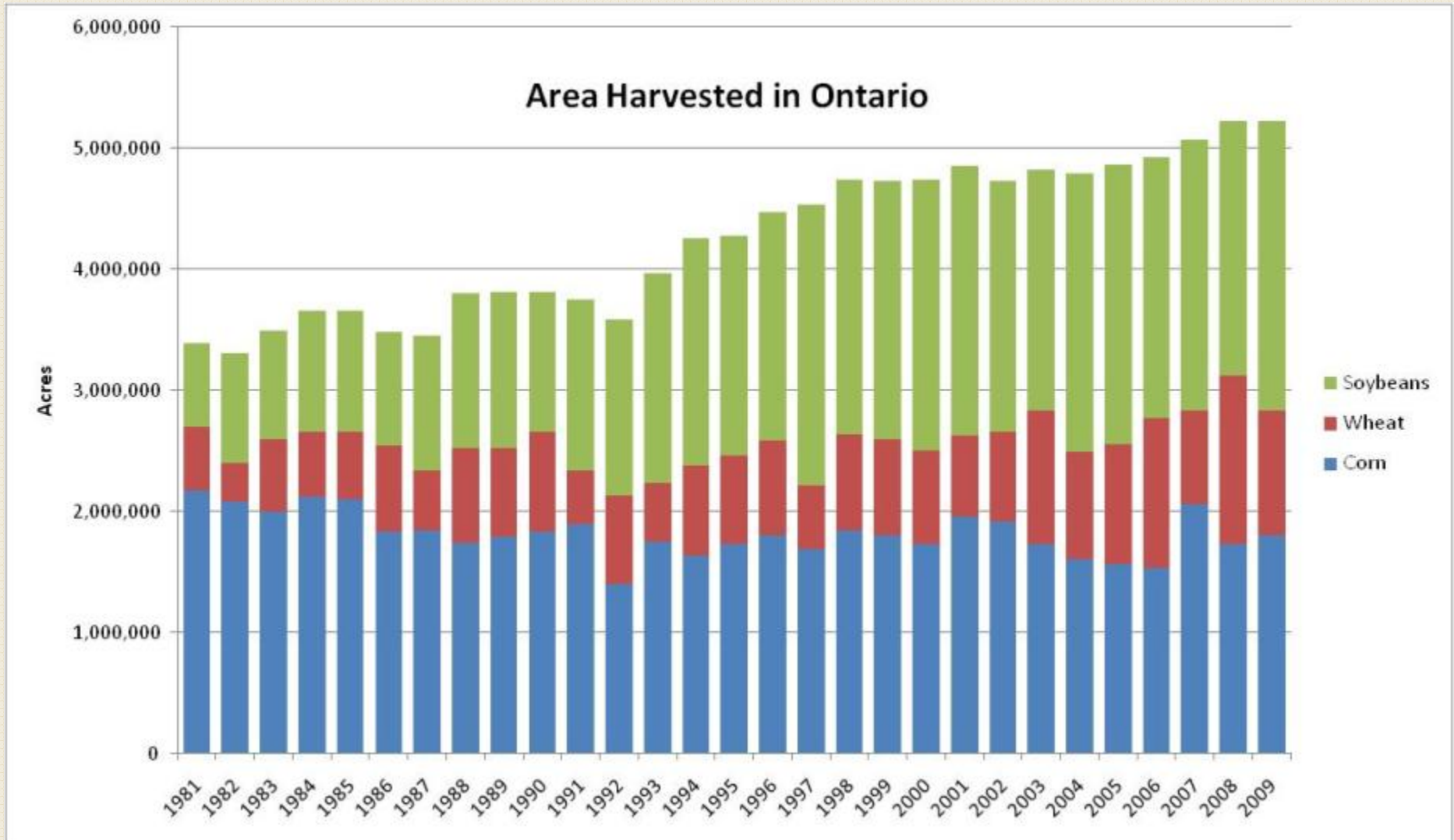


What do farmers need from plant breeders in order to increase their profitability and competitiveness?

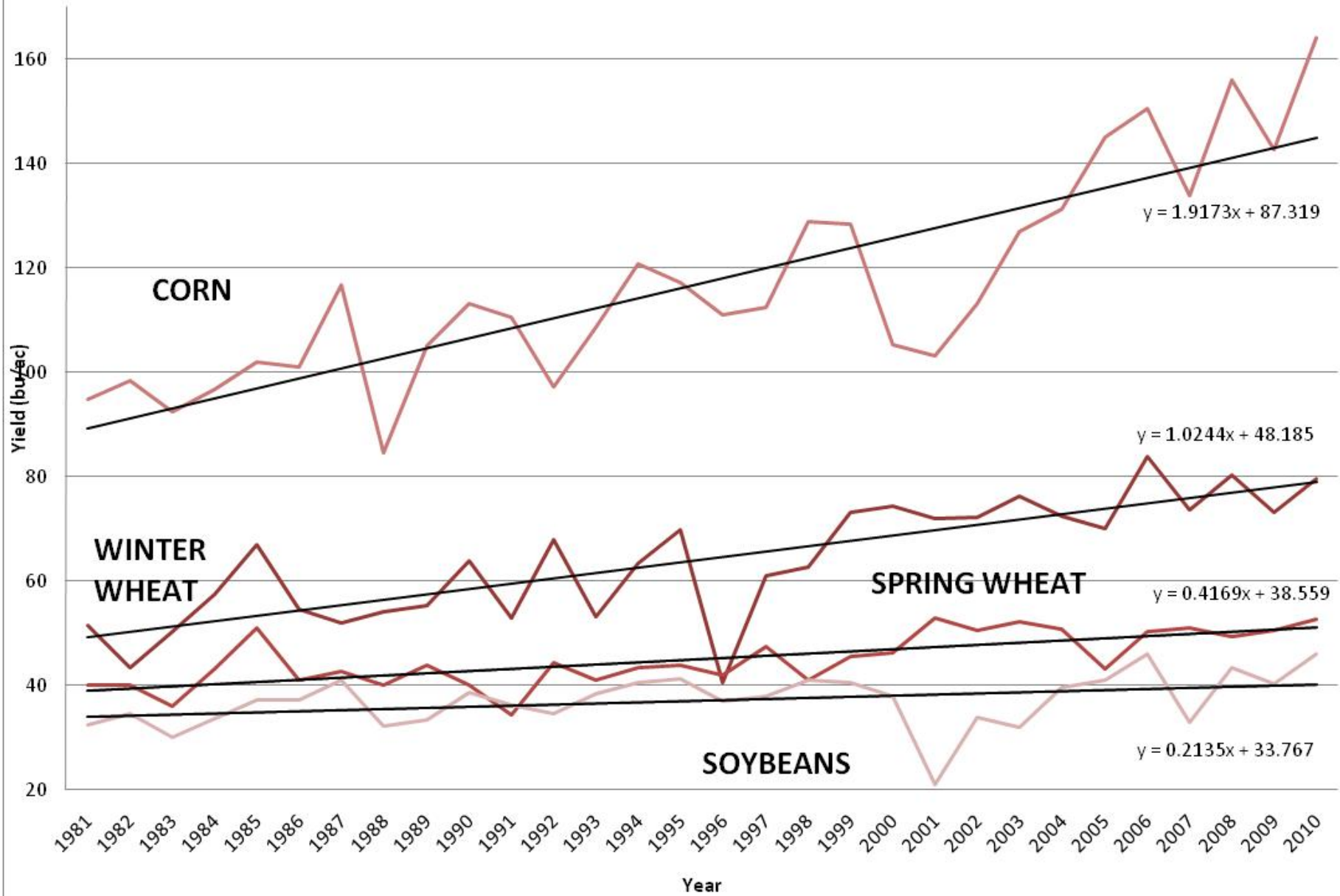
- Outline the priorities farmers have for research and plant breeding.
 - What are you looking for in the near to medium term?
 - What would you like to have in the long term?
 - What are the main concerns (cost, availability, IP etc.)?

Soybeans, eastern cereals and corn

Ontario Grain Production Trends

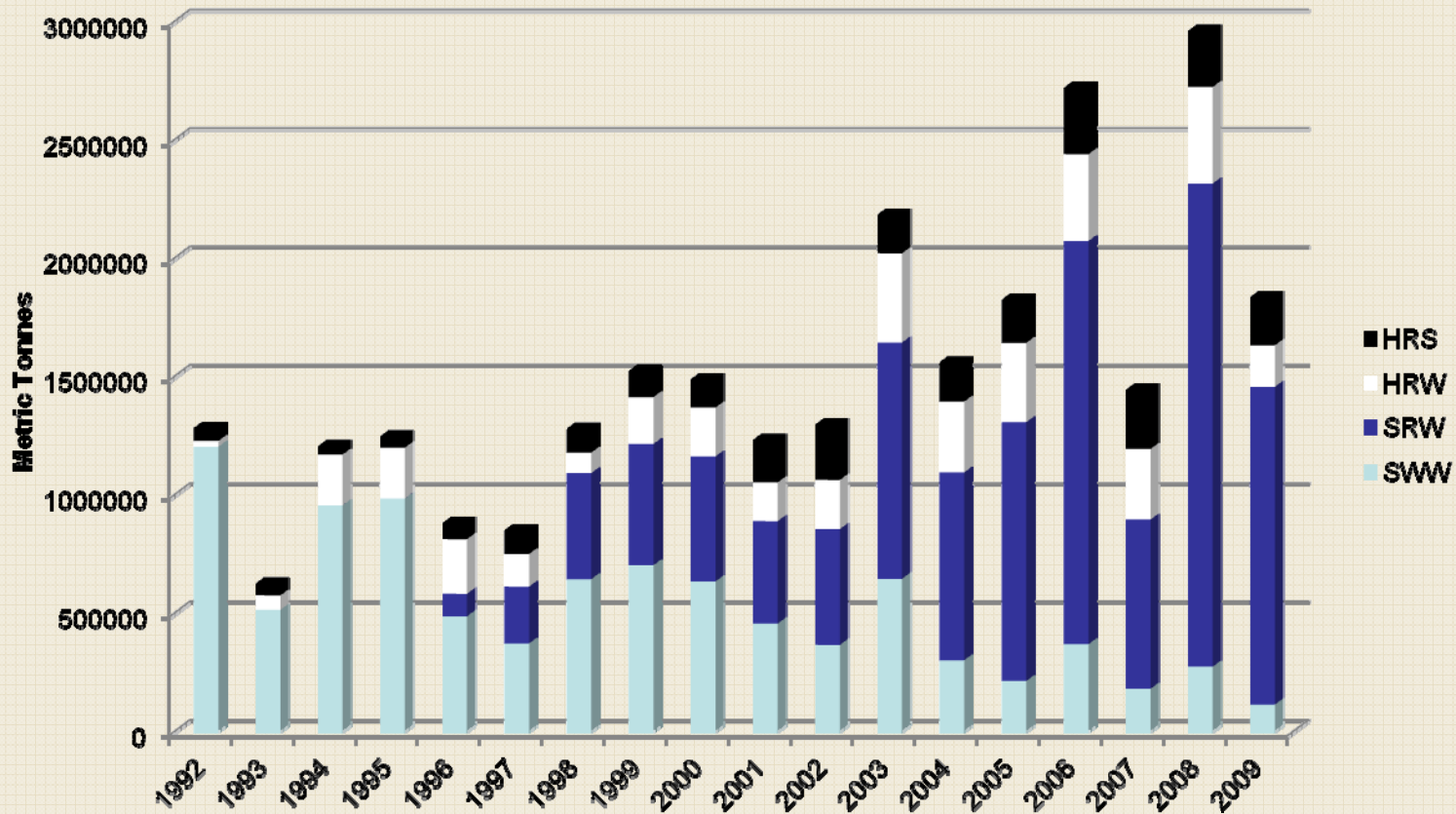


Ontario Crop Yield Trends 1981 - 2010 (bu/ac)

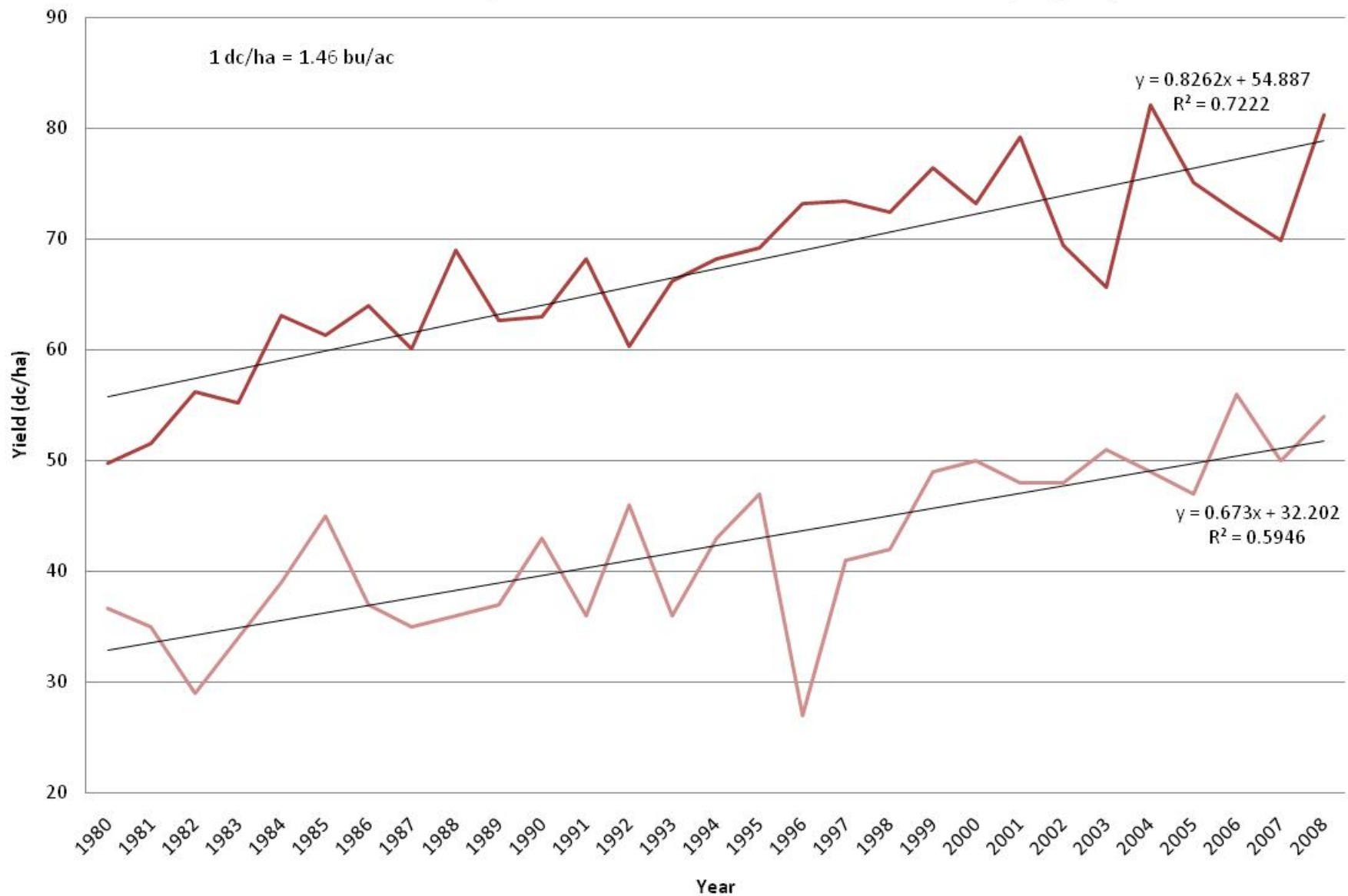


Ontario Wheat - Increasing Diversity

Ontario Wheat Production Trends



Ontario and Germany Winter Wheat Yield 1980 - 2008 (dc/ha)



Research Priorities

Grain Farmers of Ontario Delegates

Survey Highlights – September 2010

Breeding and Genetics

- **76% ranked wheat breeding for improved disease resistance traits as highly important** – more votes cast in favour of this topic than any other

Key general priorities:

- Develop genetic resistance to diseases and insect pests
- Breeding to counteract environmental stress such as temperature stress and water stress
- Breeding for specific markets and quality traits
- Performance trials to assess variety performance



Breeding and Genetics Research Priorities

In addition to yield:

Corn

- Genetic tolerance to Fusarium, cold tolerance
- Value added traits

Soybean

- Breeding for insect and disease resistance
- Conventional varieties, food quality soybeans, and soybeans for specific end uses

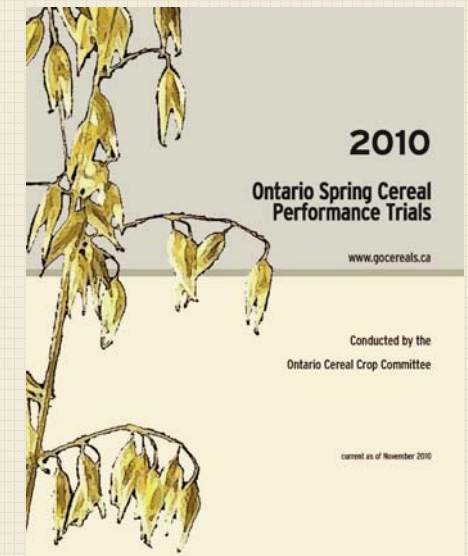
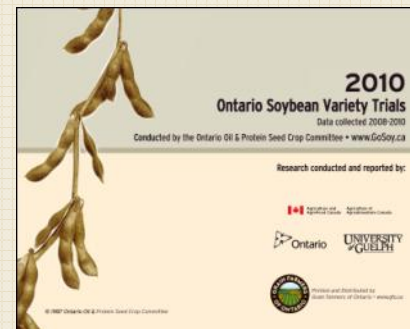
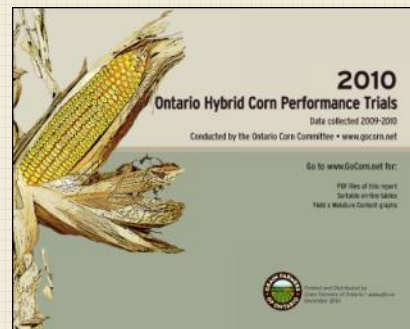
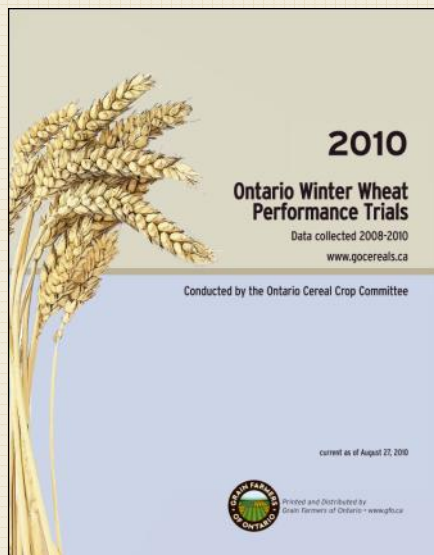
Wheat

- Genetic tolerance to Fusarium,
- Improved quality for specific end uses, and breeding new classes of wheat



2010 Performance Trials - Public

- Soybeans – 180 varieties, 24 distributors
- Corn – 318 hybrids, 12 distributors
- Winter Wheat – 33 varieties, 9 distributors
- Spring Wheat – 19 varieties, 7 distributors



More fusarium resistant varieties tend to be lower yielding

