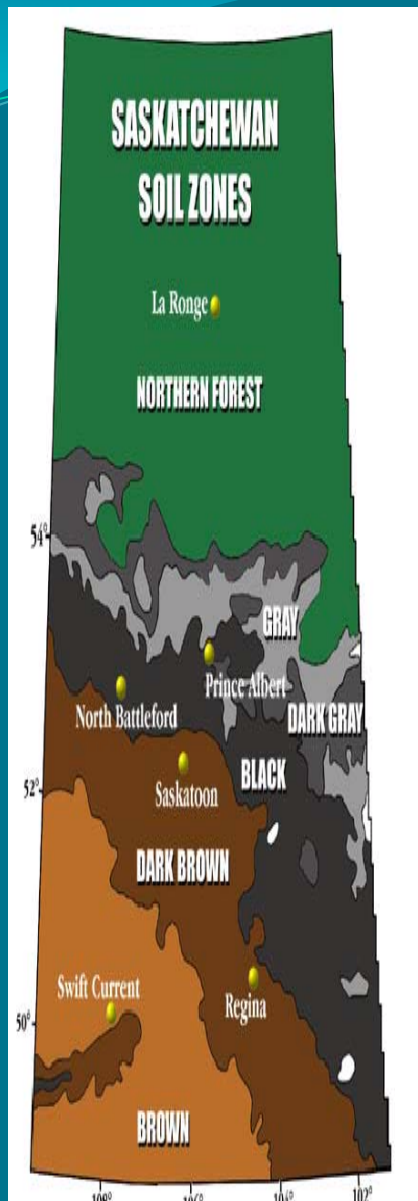


Adapting Agriculture to a Changing Prairie Climate

Edgar Hammermeister, PAg
Farmer
SE Saskatchewan



- Soils – loam to clay loam
- “Moist Dark Brown” Soil Zone
- May, June, July Rain averages 6.5 “
- Total Annual Precip. Averages 16 “

Alameda



Cropping by the markets

- Wheat
- Barley (Malt)
- Oats
- Winter Wheat
- Canola
- Flax
- Peas
- Lentils
- Canary Seed
- Spices including:
 - Corriander
 - Carraway

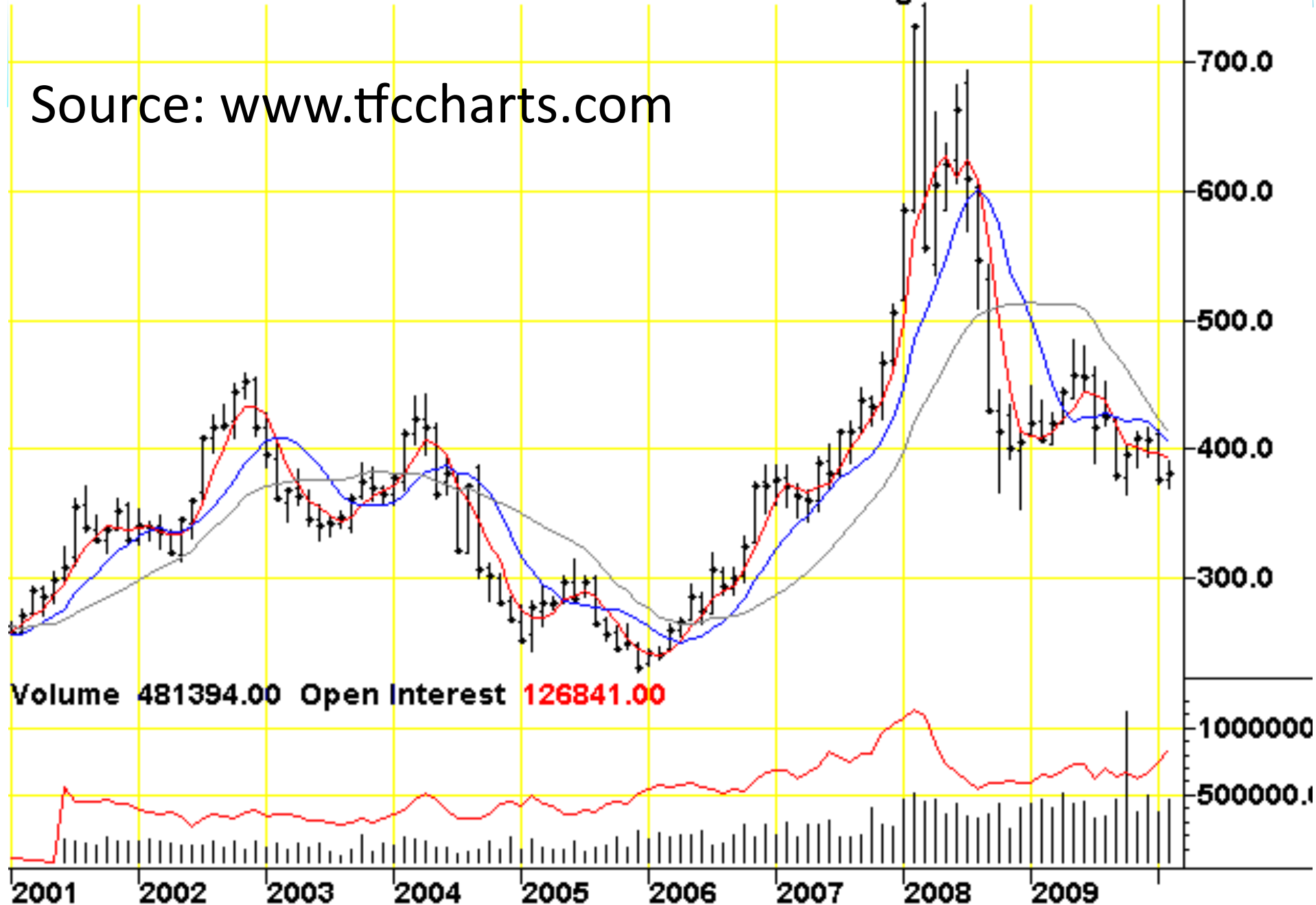
First order of business is to make money – short term and long term.

Mother Nature is a challenging Partner



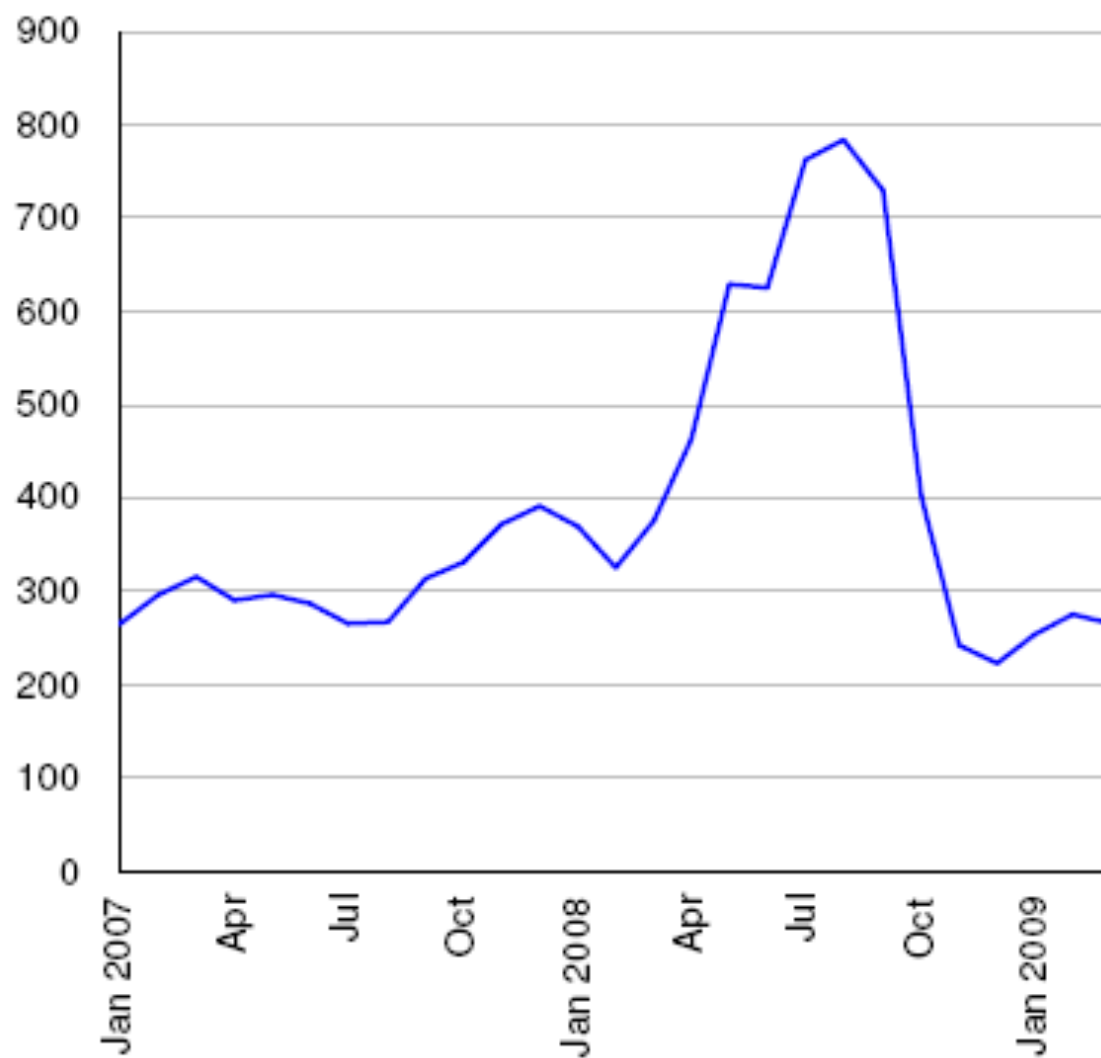
02/26/2010 C=380.4 +4.6 O=375.8 H=390.3 L=370.4 Mov Avg 3 lines

Source: www.tfccharts.com



Urea price

USD/ton
Fob Black Sea



Source: Yara
2009



What do we see happening today?

What are we doing today?

What must we do in the future?

What are we seeing today?

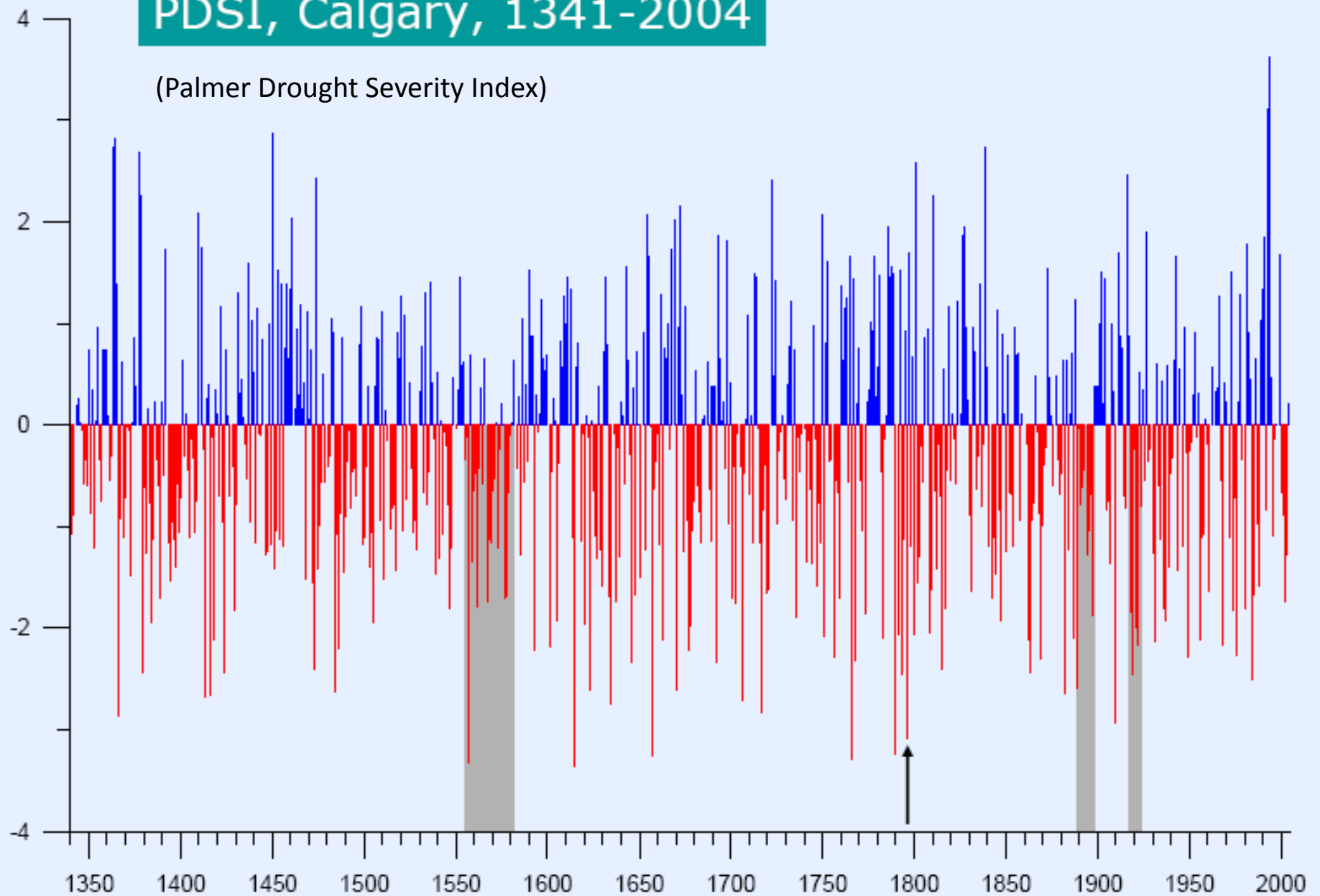
- Generally seeing earlier seeding
 - Function of warmer springs (?), and
 - Adoption of better agronomic practices



- Hard to see specifically what is happening.
 - A lot of year to year “noise”.
 - Management will flex to “role with the averages”.
 - Balance of risk management, risk tolerance and market opportunities.

PDSI, Calgary, 1341-2004

(Palmer Drought Severity Index)



Source: Dave Sauchyn, Prairie Adaptation Research Collaborative, U of Regina







Prairie Poker.ca



Playing the hand

- Water
- Markets
- Experience
 - Risk tolerance
 - Risk coverage

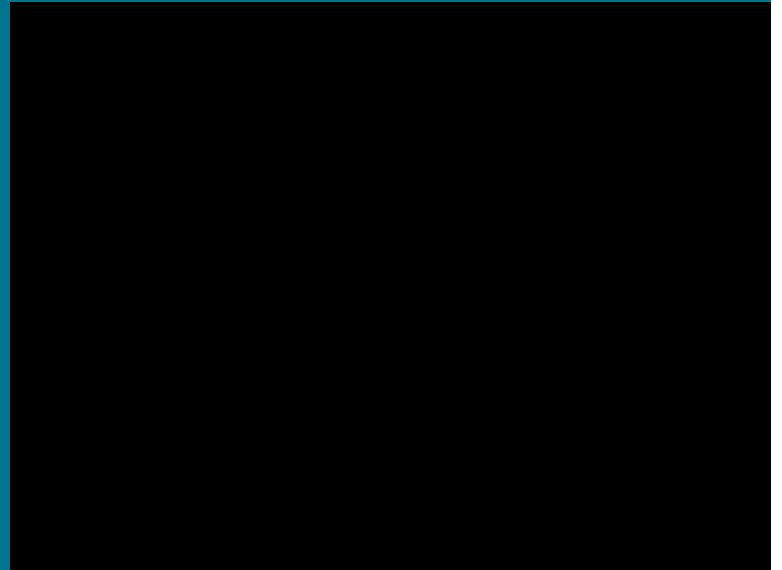


The background is a solid teal color. At the top, there are several wavy, horizontal lines in shades of blue and teal, creating a sense of movement or a horizon line.

What are we doing today?

Managing and Protecting the most limiting nutrient - Water

- Crop Rotation
- Early Seeding
- Stubble Height
 - Snow catch
 - Wind break & Shading



Looking to the Future

Big Picture

- Canada's competitiveness
 - Center of continent
 - Cost of production
- Fundamental R & D aimed providing options for an uncertain future.

Wheat Region Shifts North

Source: <http://news.bbc.co.uk/2/hi/science/nature/6200114.stm>



Wheat Region Shifts North

Projected Viable Wheat Production 2050

Source: <http://news.bbc.co.uk/2/hi/science/nature/6200114.stm>

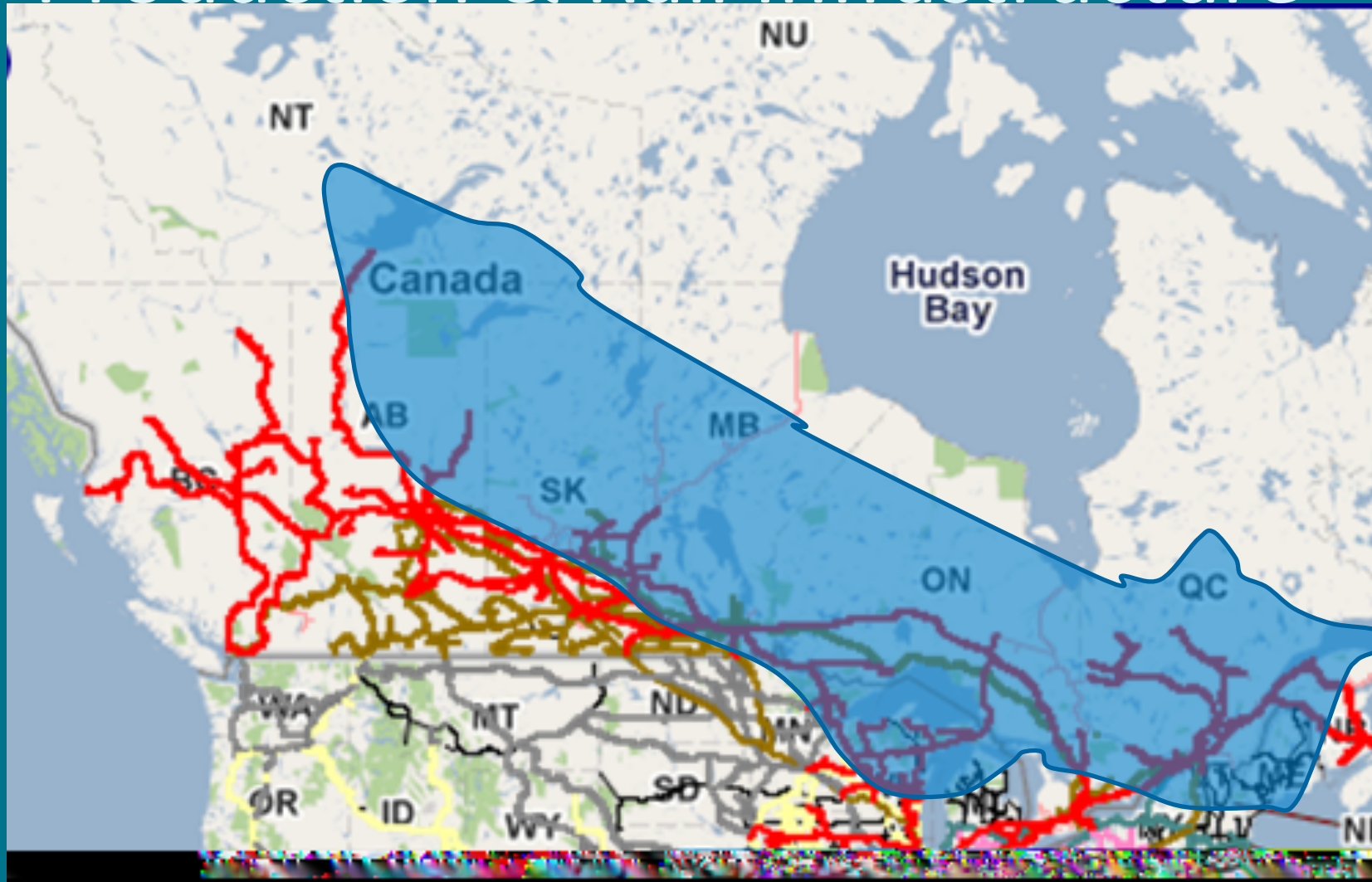


Projected 2050 Viable Wheat Production and Canadian Soils



Projected 2050 Viable Wheat Production & Rail Infrastructure

A map of North America, including Canada and the United States, illustrating projected 2050 viable wheat production areas and rail infrastructure. The map shows various provinces and states, with a large blue-shaded region indicating the projected viable wheat production area, primarily covering the Prairie Provinces (Alberta, Saskatchewan, Manitoba) and extending into the Great Lakes region (Ontario, Quebec). Red lines represent the rail infrastructure network, showing a dense network of lines across the continent, particularly concentrated in the western and central regions. The map also shows major bodies of water like Hudson Bay and the Great Lakes, and various state and provincial abbreviations (e.g., NT, NU, AB, SK, MB, ON, QC, WA, MT, ND, SD, WY, ID, OR, NV, UT, AZ, CA, TX, OK, MO, IL, IN, OH, PA, NY, VT, NH, ME, HI, AK).



Looking to the Future - Local Picture

- Spring crop adaptation?
 - Some agronomic adjustments – impact?
 - Are southern crops going to move North?
 - Temperature and photoperiod impacting
- GM research?
 - Public (Market acceptance)
 - Purely private or balance with public as well?

Looking to the Future

- Winter crop opportunities
 - Shifting crop growth to a more conducive time.
 - Yield potential can be significant as the crop “harvests energy” for a longer period of time.
 - Aggregate/Inter cropping

Fall back position is to live on depreciation

- Poor stewardship ultimately diminishes the productivity of the land.
- Lower productivity creates greater risk.

Facilitating Adaptation

– Successful Models Exist

- Involve the farmer
- Farm organizations that serve to deliver the evolving science to the farmer for implementation
- Leveraging the passion to be
“good stewards of the land”
 - The power of coffee row



6-7-18

200