

Ultimate Canola Challenge

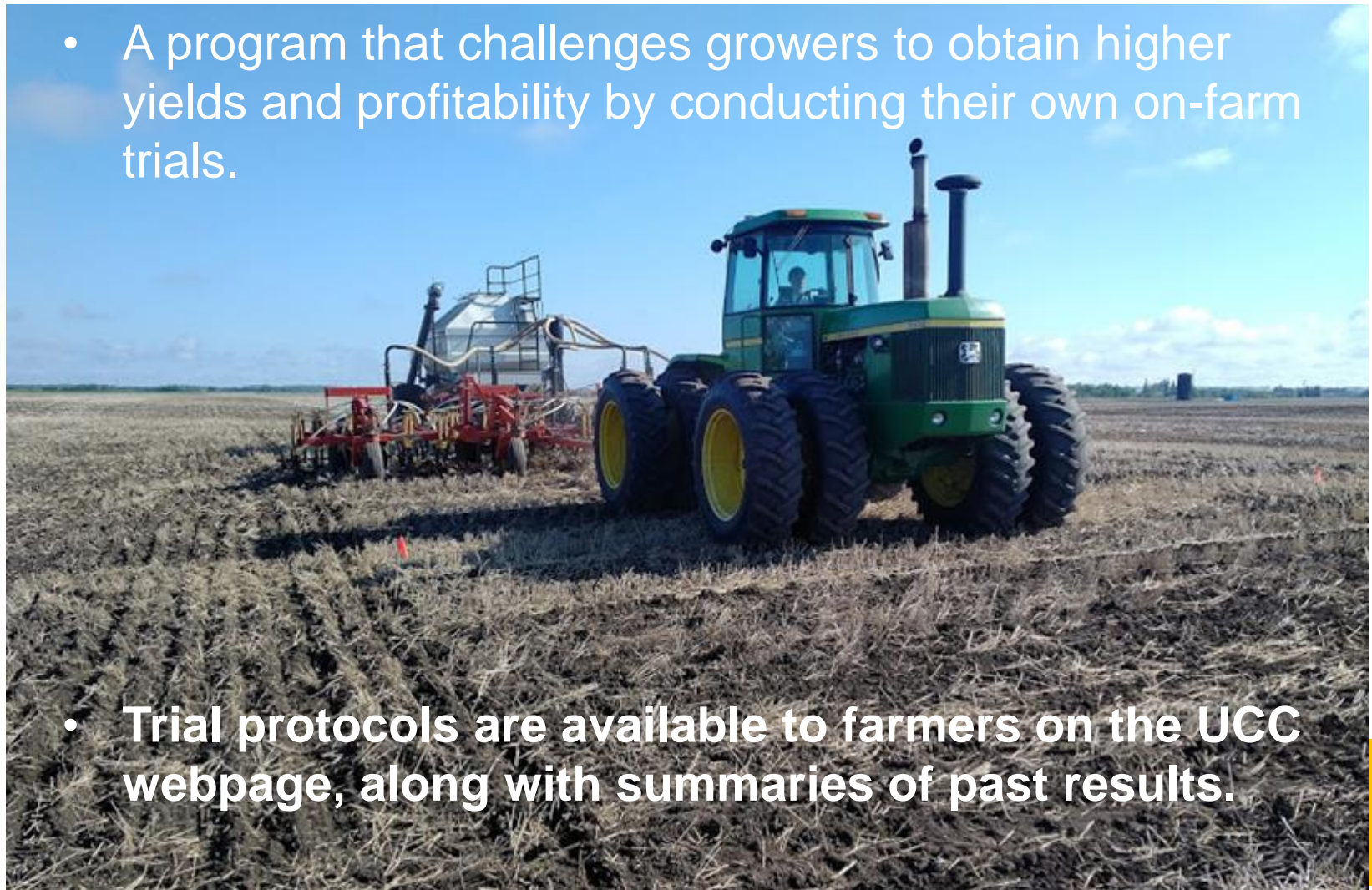
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KEEP IT COMING

What is the Ultimate Canola Challenge?

- A program that challenges growers to obtain higher yields and profitability by conducting their own on-farm trials.



- Trial protocols are available to farmers on the UCC webpage, along with summaries of past results.

What is the Ultimate Canola Challenge?

- Protocols address all factors required for a scientifically sound trial, such as:
 - Leaving a check strip
 - Field selection
 - Treatment map
 - Minimizing variability (from external factors)
 - Note collection
 - Managing harvest
 - Replication

2016 UCC Protocol: Nitrogen rate trial

- **Producers use their base rate of nitrogen (N)**
 - Based on a soil test results and yield targets
- **Add in a 25% increased N rate treatment**
- **Replicate 4 times**
- **Note that N is only applied at seeding**

- **Data collection sheet included provides a thorough but convenient method of record keeping**

UCC 2016 – Nitrogen rate trial

- **Why Nitrogen?**

- Nitrogen is a common limiting nutrient (other than water) for canola production
- High-yielding hybrid cultivars will require more N to support yield
- Want to see if adding extra N pays in terms of yield and economics?
- Check out this Canola Watch article:
<http://www.canolawatch.org/2012/04/04/put-extra-input-investment-into-nitrogen/>

UCC 2016 – Nitrogen rate trial

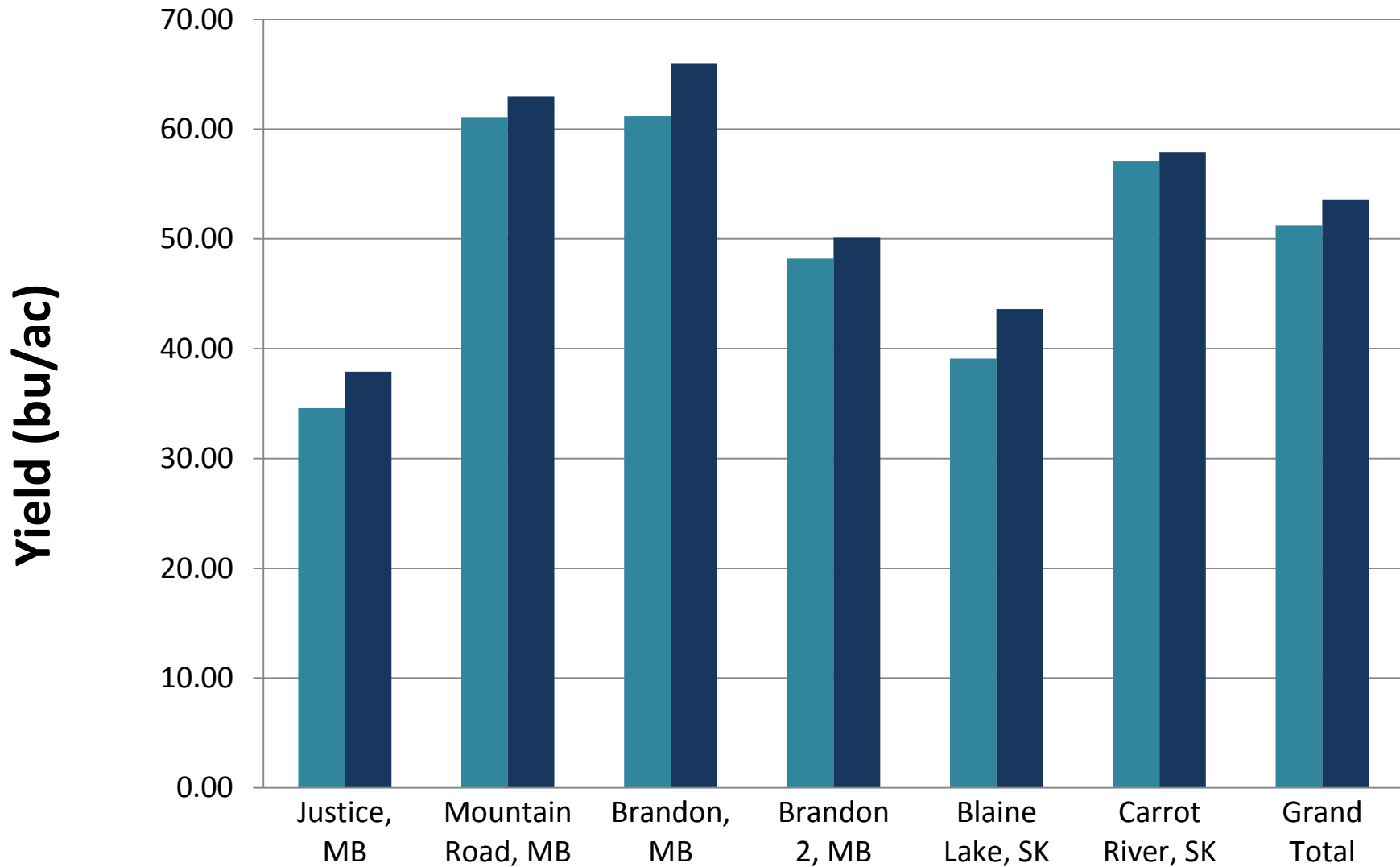
- **14 sites planted in Western Canada**
 - 5 in Manitoba
 - 5 in Saskatchewan
 - 4 in Alberta
- **6 sites completed**
 - 4 in Manitoba
 - 2 in Saskatchewan
 - 0 in Alberta
 - Sites lost for various reasons



(early season frost in Manitoba, harvest conditions in Saskatchewan and Alberta)

2016 Ultimate Canola Challenge Interim Results

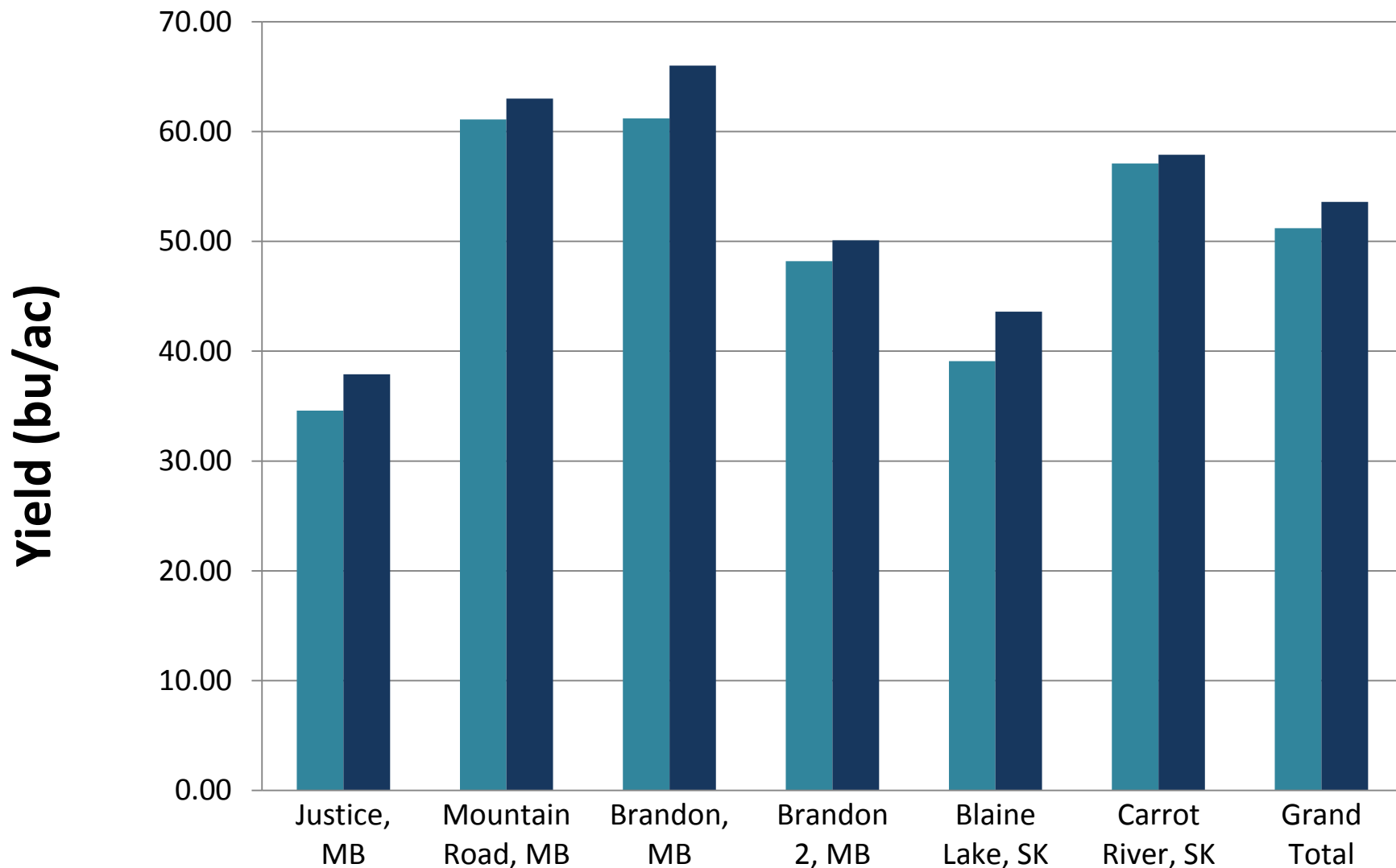
■ Check Treatment Yield
 ■ Extra Nitrogen Treatment



Base Rate	163.90	200.00	142.46	115.00	70.00	90.00	130.23
Treatment Rate	204.90	250.00	178.22	144.00	87.50	112.50	162.85

2016 Ultimate Canola Challenge Interim Results

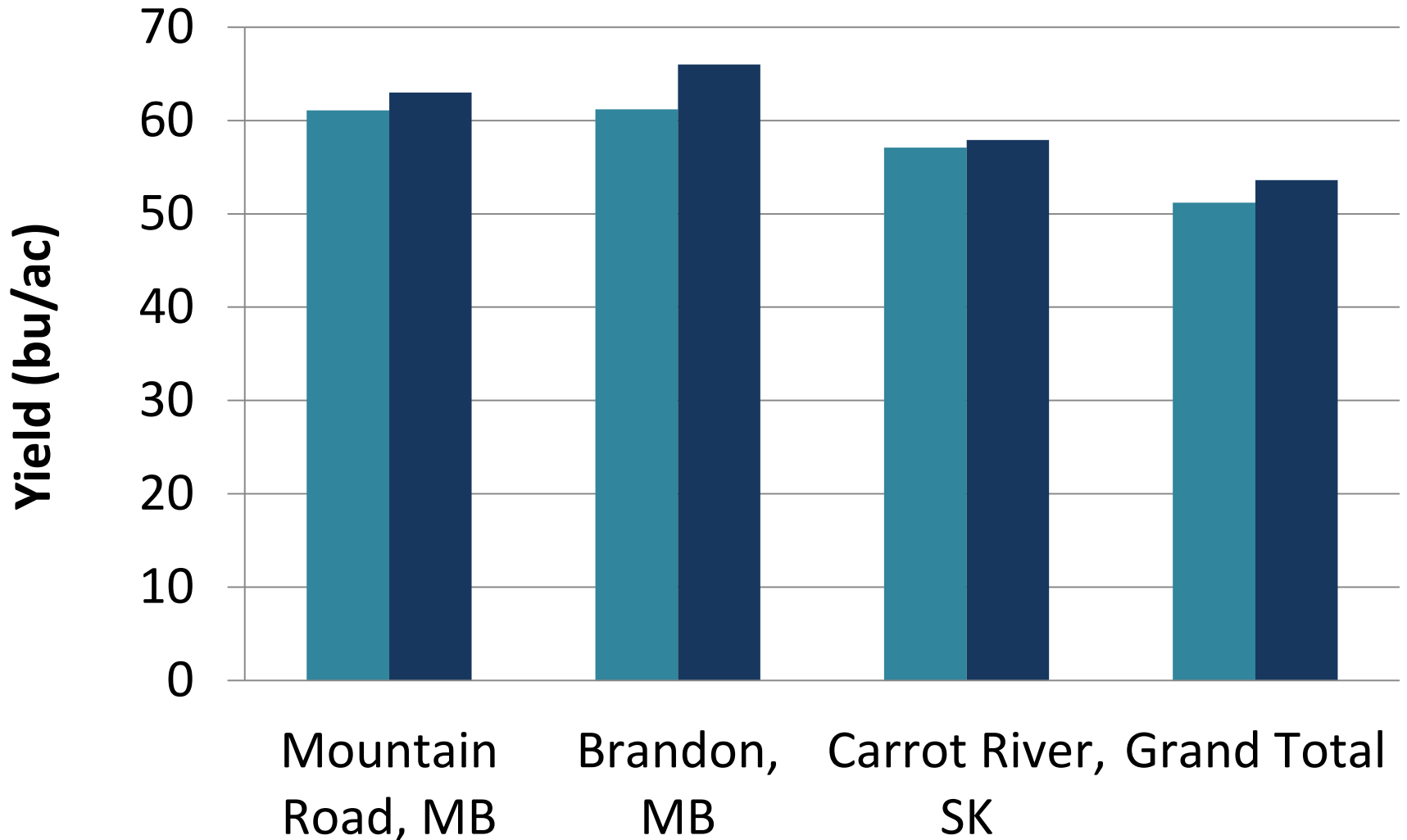
■ Check Treatment Yield
 ■ Extra Nitrogen Treatment



t test	0.24	0.04	0.00	0.57	0.18	0.04	0.00
Statistically Significant?	NS	*	** or *	NS	NS	*	***

2016 Ultimate Canola Challenge Interim Results

■ Check Treatment Yield ■ Extra Nitrogen Treatment



2016 UCC Conclusions

- Overall (when all sites were considered) there was a statistically significant response to the application of 25% additional nitrogen (of the recommended rate)
 - A statistically significant yield response was found in 3 of 6 usable sites
 - Some sites did not show a significant yield response
 - Some sites showed a yield difference between the two nitrogen treatments, however statistical analysis couldn't determine this was necessarily due to treatment differences
 - Yield differences could have been due to variability of the trial or other factors

2016 UCC Conclusions

- **Making decisions off one site or one year will not give a good idea of product performance over a range of conditions and environments**
- **Plan for 2017**
 - Continue with nitrogen protocol
 - Protocols and data collection sheets available here:
<http://www.canolacouncil.org/crop-production/ultimate-canola-challenge/>
- **Want to participate? Let me know!**