Government of Saskatchewan

2013 Research and Demonstration Results

Rory Cranston PAg
Government of Saskatchewan
Regional Crop Specialist
ICDC Annual Conference Dec 4 2013

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Flax Fungicide demonstration

- Pages 1 to 5
- Riverhurst
- Luck Lake

October 7 2013

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Riverhurst Site

	Yield	Yield as % check	TSW
Untreated	31.2 bu./acre	100	8.4g
Proline	32.1 bu./acre	103	8.6g
Headline	32.2 bu./acre	103	8.7g

Luck Lake Site

	Yield	Yield as % check	TSW
Untreated	44.5 bu./acre	100	9.2g
Proline	48.9 bu./acre	110	10.1g
Headline	49.5 bu./acre	111	9.9g

Canola Fungicide Application Demonstration

- Pages 6 to 10
- Two locations
  - Moon Lake – compared a single and double application
  - Riverhurst - compared a single and a double application. Compared using single and different modes of action in double application system

DuPont™
Vertisan™
fungicide

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MoonLake site

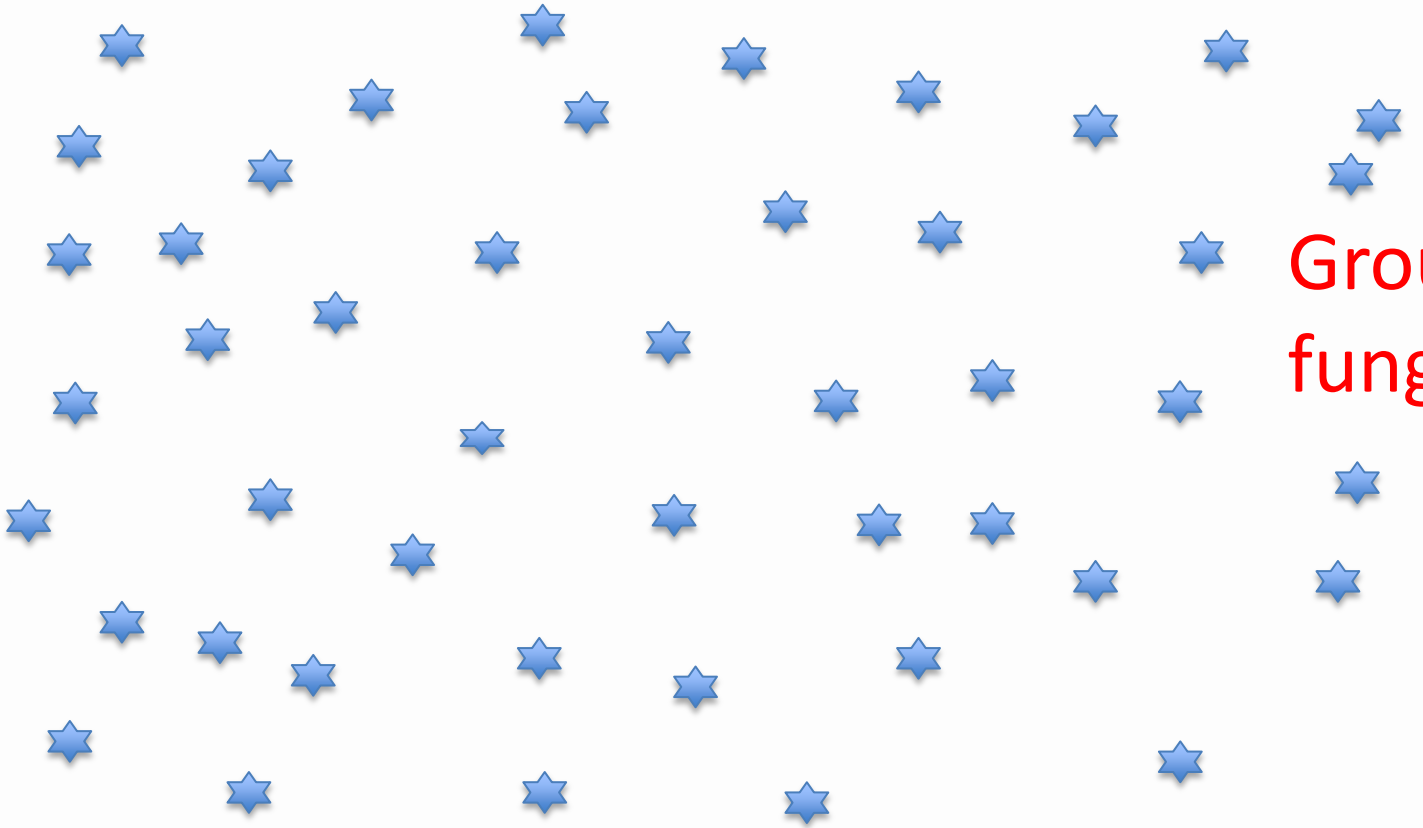
Treatment	Disease Incidence	Disease severity
Untreated	28%	2.14
Proline	22%	2.10
1st app Proline & 2nd app Astound	18%	1.95

Treatment	Yield	Yield as % check	TKW
Untreated	51.1 bu./acre	100	7.3g
Proline	54.8 bu./acre	106	7.1g
1st app Proline & 2nd app Astound	62.6 bu./acre	123	7.2g

Riverhurst site

Treatment	Disease Incidence	Disease severity
Proline	36%	1.97
Vertisan	32%	2.09
1st app Proline & 2nd app Proline	24%	1.95
1st app Proline & 2nd app Vertisan	20%	2.05

Treatment	Yield	Yield as % Proline	TSW
Proline	67.3 bu./acre	100	6.9 g
Vertisan	73.1 bu./acre	109	7.1g
1st app Proline & 2nd app Proline	67.1 bu./acre	100	6.9g
1st app Proline & 2nd app Vertisan	77.9 bu./acre	116	7.4g



Group 3 fungicide

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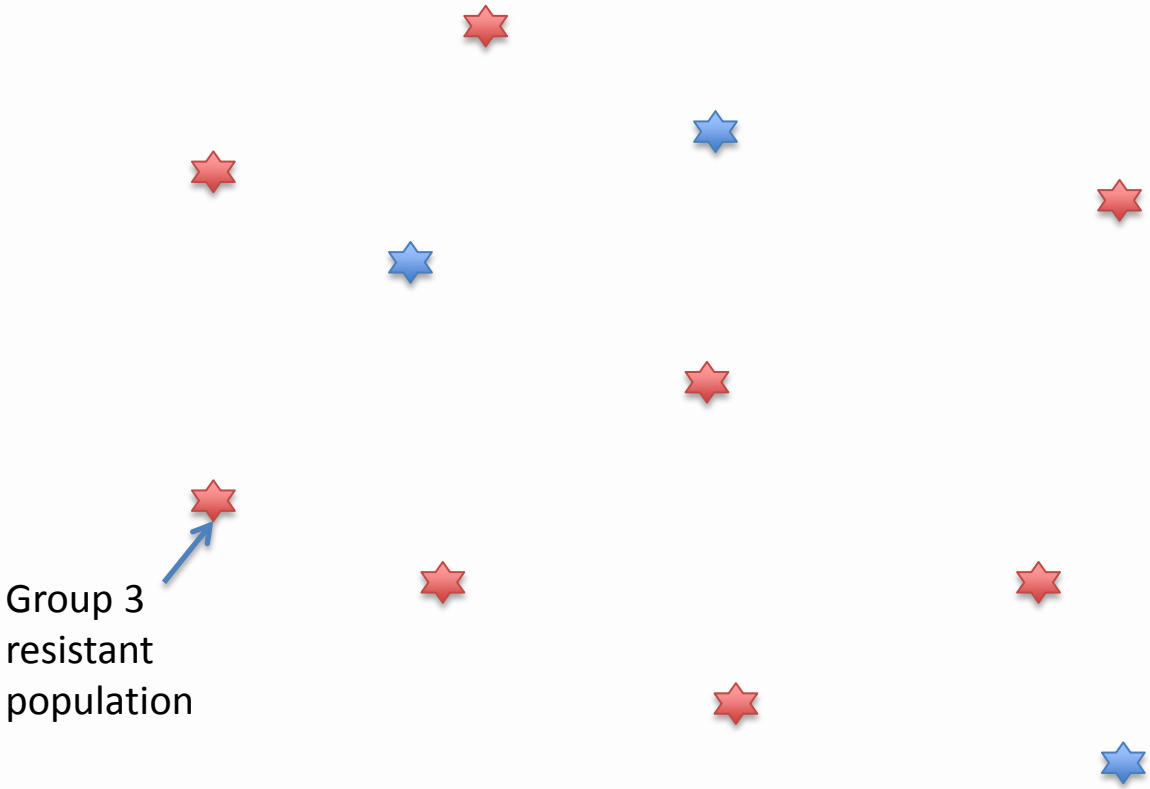
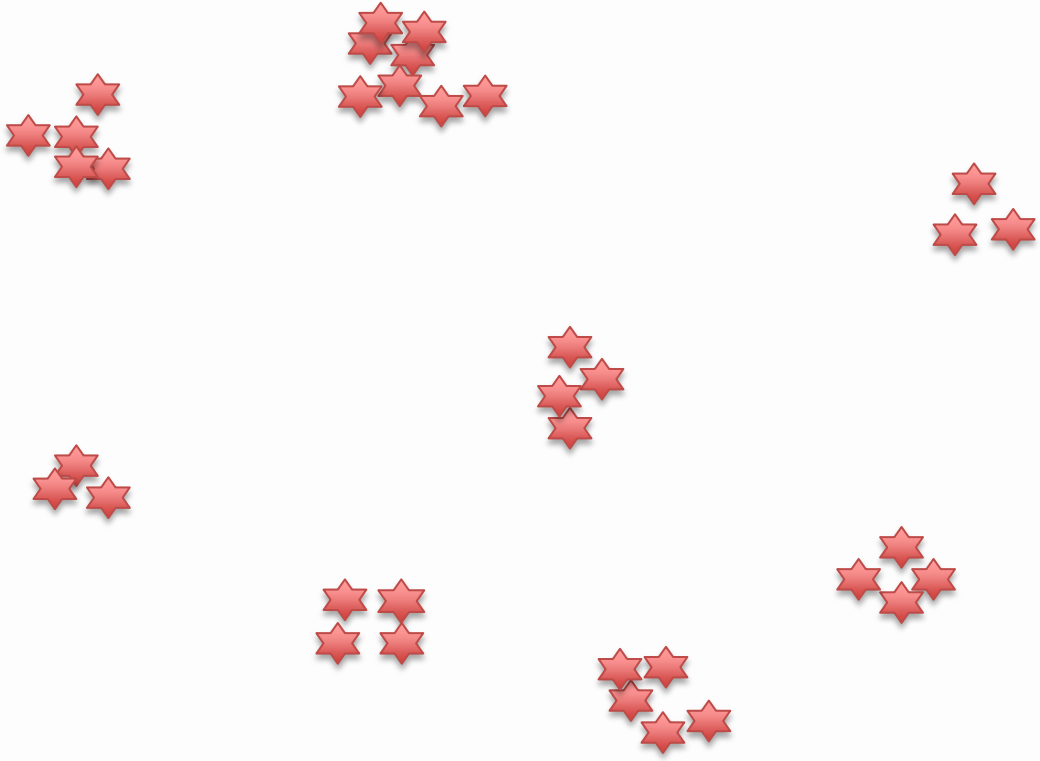


Group 3
fungicide

Government of Saskatchewan



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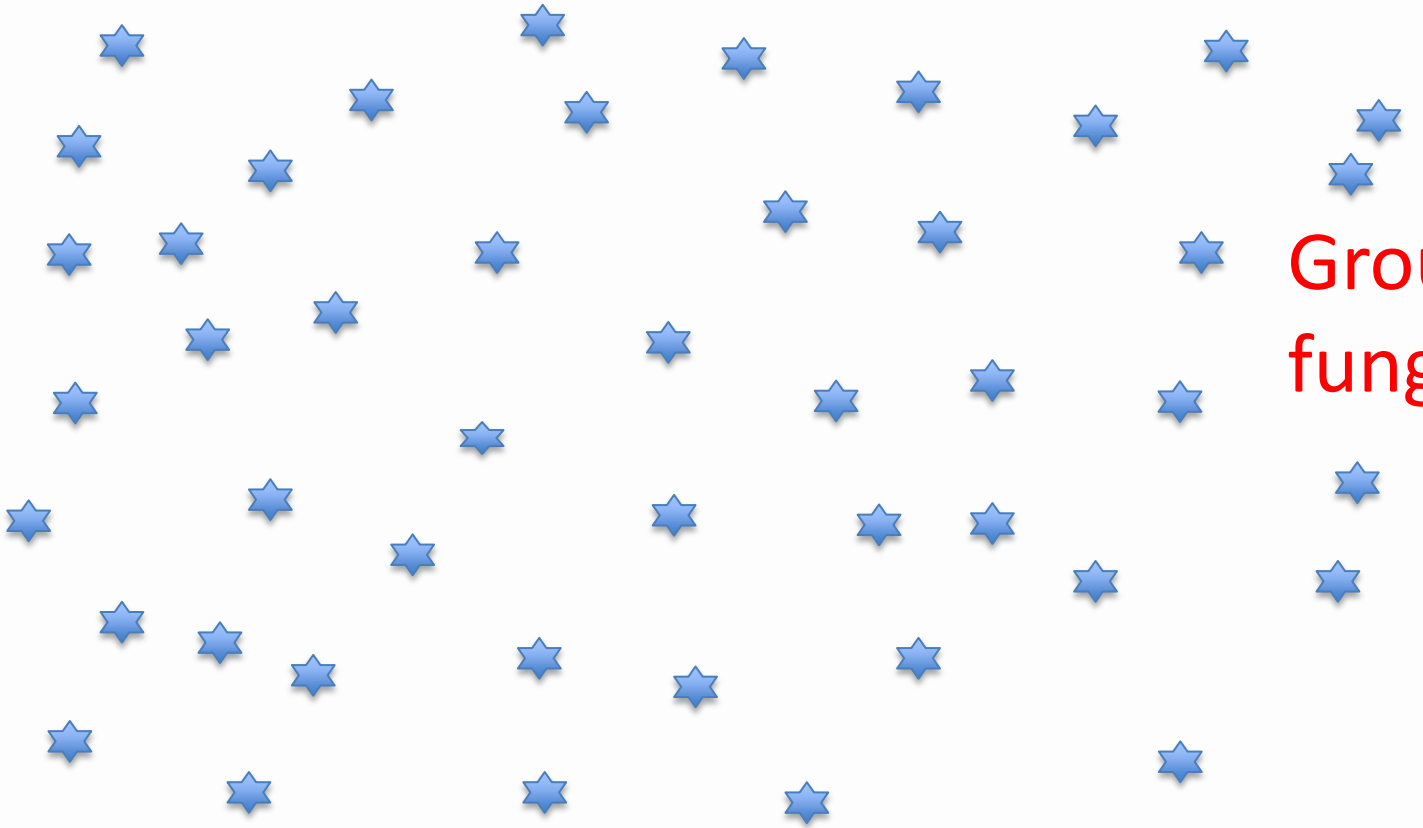

Group 3 fungicide

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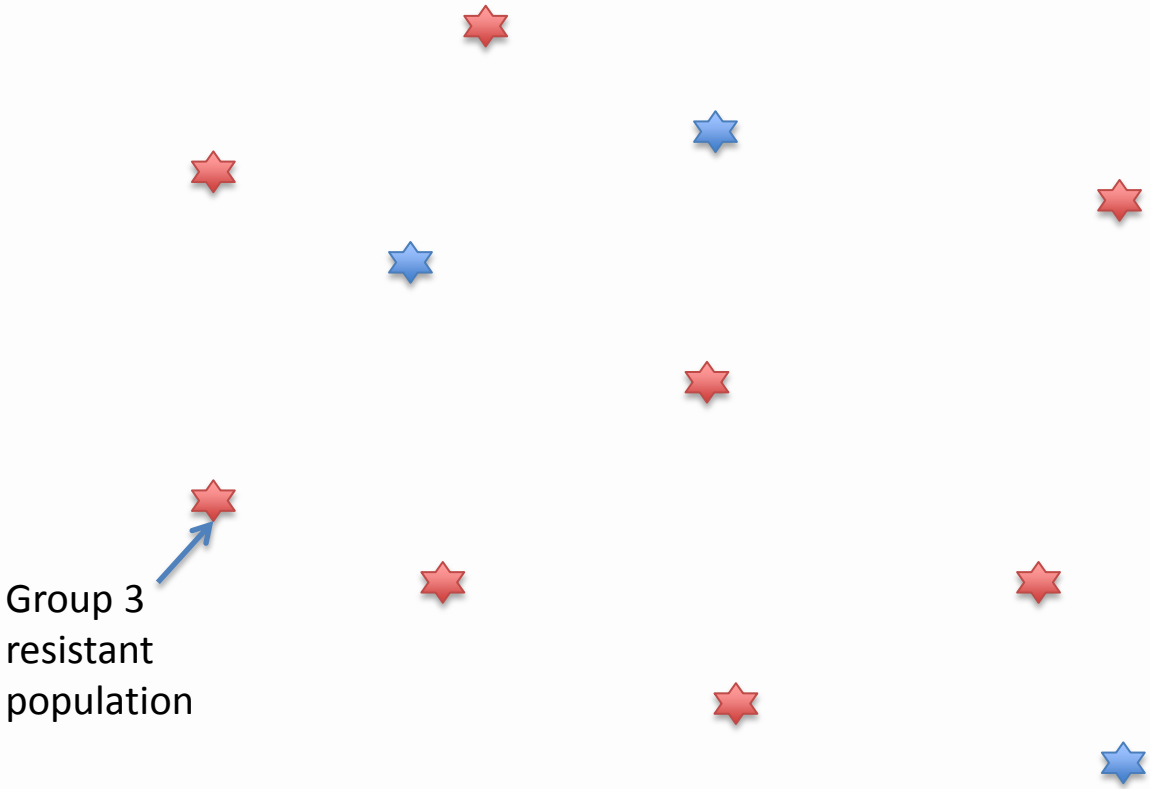

Group 7
fungicide

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Fungicide Application at Herbicide Timing

- Pages 11 to 13
- Riverhurst

August 15 2013

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Riverhurst site

Treatment	Yield	Yield as % Untreated	TKW
Untreated	105 bu./acre	100	41.9g
Tilt	99.5 bu./acre	95	41.8g
Quilt	106.6 bu./acre	102	42.8g
TwinLine	110 bu./acre	105	43.5g

Demonstration of Plant Growth Regulator application in irrigated Cereal Production

- Pages 14 to 15
- Luck Lake
- Product Name - Manipulator
- Chemical Name - Chlormequat

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July 19 2013

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Luck Lake site

- Crop height
  - Untreated 110.2 cm
  - Treated 97.2 cm
  - 13 cm or 12 per-cent height reduction

Luck Lake site

Treatment	Yield	Yield as % Untreated	TKW	Protein
Untreated	62.5 bu/acre	100	35.5 g	13.5%
Treated with a PGR	72 bu/acre	115	37.3g	13.5%

Acknowledgements

- Randy Bergstrom
- Murray Purcell
- Ryan Miner
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- Craig Millar
- ICDC

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Plant Growth Regulators

Non-replicated demonstration in 2010

- Plant height reduced by 15 cm (14%) and severe lodging was eliminated with PGR
- Grain yields increased from 34 To 53 bu/ac (57%) with PGR application

Replicated field trials initiated in 2013

- 3 fertility levels (90-28-14-14 to 134-42-21-21)
- 4 PGR treatments (nil, GS 21, GS31, split app)

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Indian Head 2012
July 26

untreated

PGR

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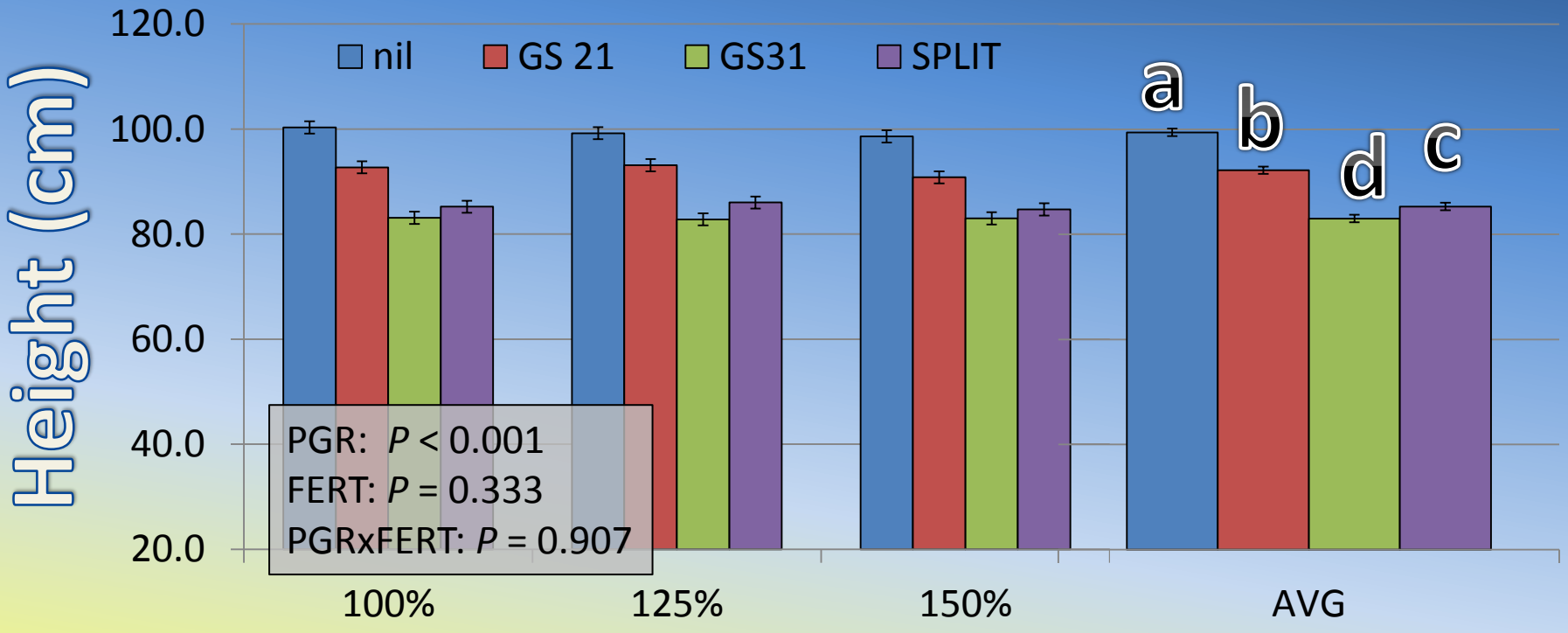
Plant Growth Regulators



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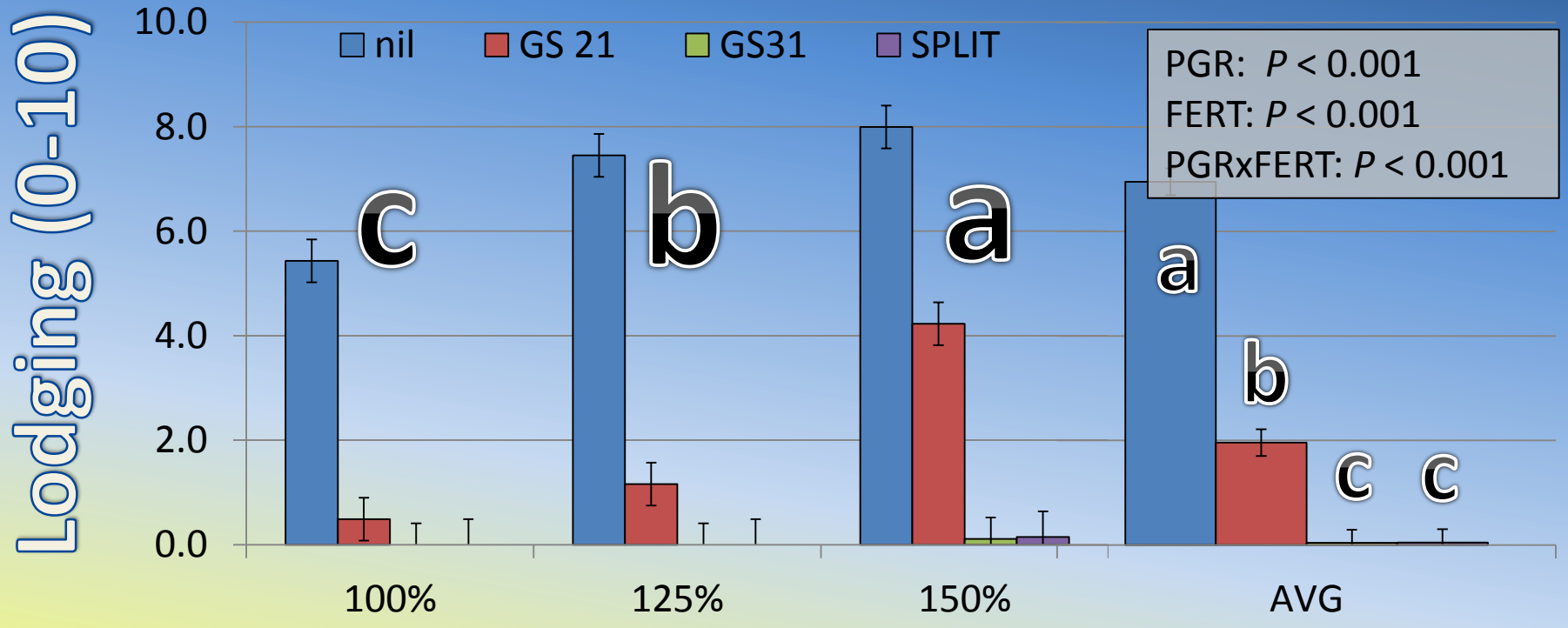
Plant Growth Regulators



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SK Ag Agrologist Update
Nov. 19-21 2013

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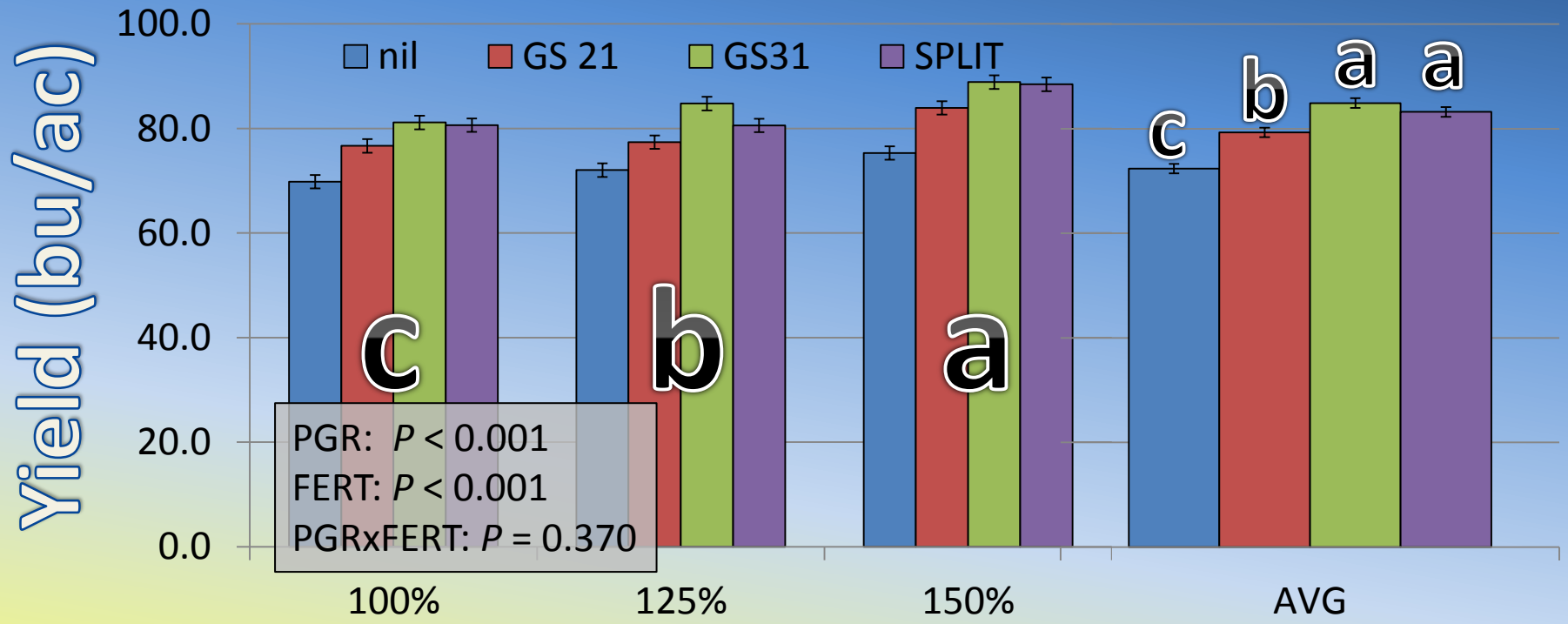
Plant Growth Regulators



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Plant Growth Regulators

Indian Head 2013 Conclusions

- Preliminary results show strong potential for PGR applications to reduce height and lodging while enhancing potential wheat yields
- Overall yield increase of 18% with PGR application at GS 31, application at GS 21 was a significant improvement over the check but less effective than the later timing, particularly at high fertility levels
- Opportunities for tank-mixing with herbicides likely exist but optimal timing for herbicide may be earlier than for PGR if weed pressure is high and there is risk of reduced efficacy if PGR are applied too early
- Questions on response in absence of lodging and with short varieties still need to be addressed

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