

**WESTERN APPLIED
RESEARCH CORPORATION**



Malt versus Feed Barley Management

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Malt versus Feed Barley Management



Sites: Yorkton, Prince Albert, Indian Head, Melfort, Redvers, Outlook and Scott, SK

Objectives:

- To demonstrate that newer malt varieties can provide comparable yield to the best feed varieties
- To demonstrate the differences in N management for malt versus feed barley



Malt versus Feed Barley Management



- 12 Treatments:
 - 2 varieties: CDC Bow (malt) and CDC Austenson (feed)
 - 2 seeding rates (100 and 150 lb/ac)
 - 3 N fertilizer rates (50, 75 and 100 lb/ac)
- Current Recommendations:

	Seeding Rate (lb/ac)	Nitrogen Rate (lb/ac)
Malt Barley	116	57
Feed Barley	97	69

Malt versus Feed Barley Management



	Emergence (plants/ft2)	Yield (bu/ac)
Variety		
CDC Bow	20.4	94
CDC Austenson	19.7	101
Seeds (lbs/ac)		
100	16.9	98 ←
150	23.1	97 ←
Lbs N/ac		
50	20.5	87
75	19.9	99
100	19.7	106

Malt versus Feed Barley Management

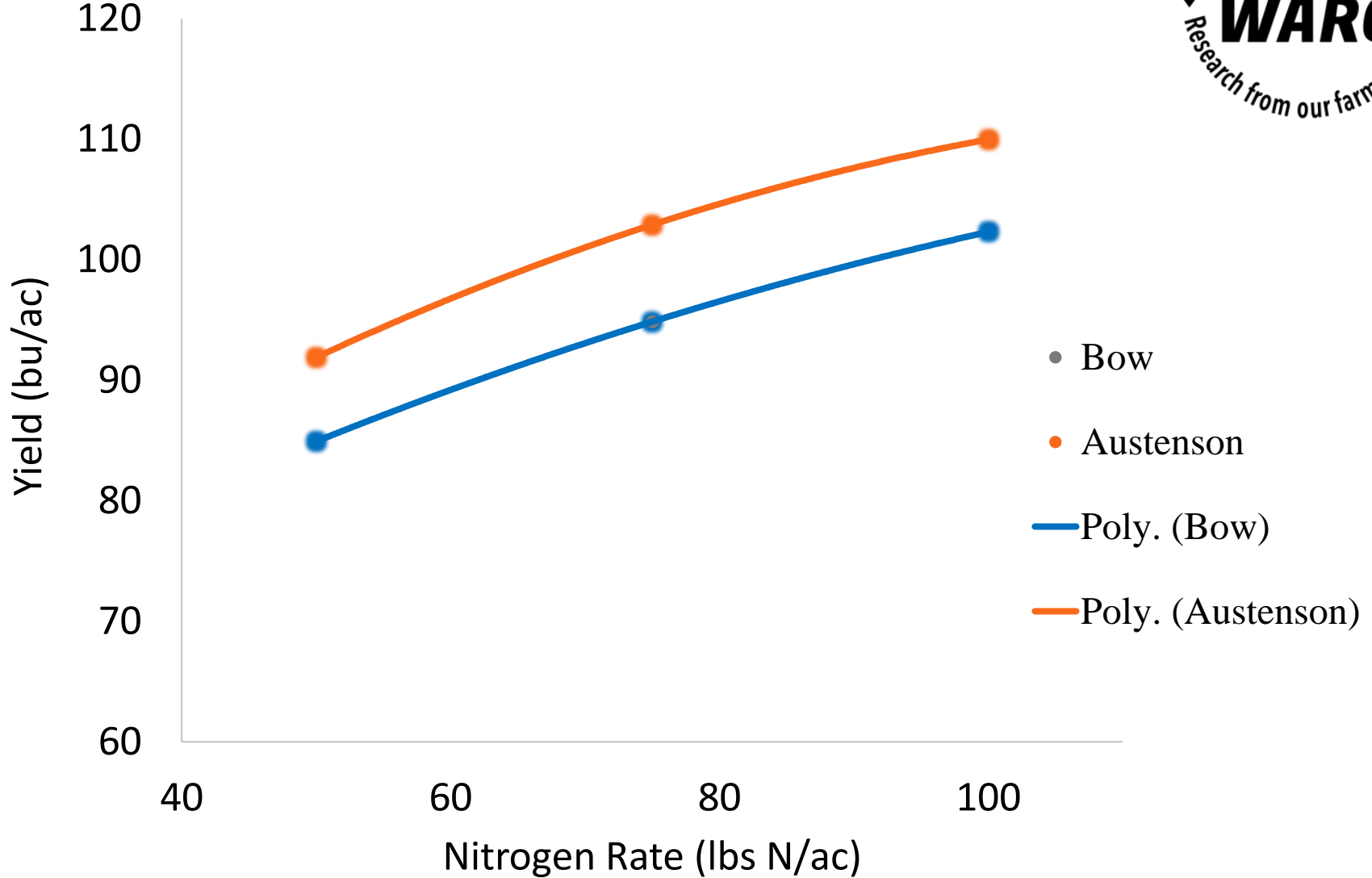


Protein

- Increased with higher N rates
- Protein stayed below max limit even at 100 lb N/ac

Treatment	Protein %
CDC Bow – 100 lb seed/ac- 50 lb N/ac	10.8
CDC Bow – 100 lb seed/ac- 75 lb N/ac	11.1
CDC Bow – 100 lb seed/ac- 100 lb N/ac	11.9
CDC Bow – 150 lb seed/ac- 50 lb N/ac	10.5
CDC Bow – 150 lb seed/ac- 75 lb N/ac	11.2
CDC Bow – 150 lb seed/ac- 100 lb N/ac	11.9

CDC Bow and CDC Austenson Yield Response to added Nitrogen Rate, averaged over Seeding Rate and Locations



When averaged across location CDC Austenson yielded 8% more than CDC Bow
Yield differences between varieties ranged from as low as 1.9% to as high as 11%

Variety by Seeding rate by N fertilizer rate interactions on barley yield



V x S x R	Yield (bu/ac)
CDC Bow – 100 lb seed/ac- 50 lb N/ac	85
CDC Bow – 100 lb seed/ac- 75 lb N/ac	94
CDC Bow – 100 lb seed/ac- 100 lb N/ac	103
CDC Bow – 150 lb seed/ac- 50 lb N/ac	85
CDC Bow – 150 lb seed/ac- 75 lb N/ac	95
CDC Bow – 150 lb seed/ac- 100 lb N/ac	102
CDC Austenson – 100 lb seed/ac- 50 lb N/ac	92
CDC Austenson – 100 lb seed/ac- 75 lb N/ac	105
CDC Austenson – 100 lb seed/ac- 100 lb N/ac	110
CDC Austenson – 150 lb seed/ac- 50 lb N/ac	91
CDC Austenson – 150 lb seed/ac- 75 lb N/ac	101
CDC Austenson – 150 lb seed/ac- 100 lb N/ac	109

Economics



- Analysis made at 100 lb N/ac
- 2017 prices
 - \$5.44/bu malt
 - \$3.22/bu feed
- 2018 prices
 - \$4.68/bu for malt
 - \$3.70/bu for feed



Economics



- Gross returns greater when selling CDC Bow for malt than selling CDC Austenson for feed
- Greater income when selling CDC Austenson for feed than selling CDC Bow for feed
- The likelihood of achieving malt with CDC Bow in 2017 or 2018 has to be greater than 10% or 27%, respectively to justify growing it



Conclusion

- 100 lb/ac seed results in higher yield
- Increasing nitrogen increased protein
- Highest yield was Austenson at 100 lb/ac seed with 100 lb N/ac
- Review personal track record in growing malt versus feed to decide what is more economical

Take Home Message



- Recommendations:
 - 100 lb seed/ac
 - 100 lb N/ac
- Malt is a good option
- “Grow a feed barley for yield if you can’t achieve malt 50% of the time”
 - Old recommendation
 - Soon will no longer apply



Thank You



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