

Ultimate Canola Challenge Trials Any Promising New Products?

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Production Economics

- In theory spend on the input that still has the greatest marginal return
 - For example \$3 crop revenue for \$1 input
- Reality is not so perfect
 - Can't predict weather, pests
 - Some product claims are exaggerated
 - At best, we might be able to crudely predict if a positive response is likely or not





Control

with Penegetic

Blogging: education or advertising?


45H29


Impressive yield potential with exceptional standability and harvestability. Hybrid with Pioneer Protector® Clubroot resistance built-in.

Comparison Brand/Product	# of Comp.	Pioneer Yield	Yield Adv.	% Wins
DeKalb 73-45RR	80	49.6	1.1	60%
DeKalb 73-65RR	20	45.3	1.4	70%
InVigor 5440	23	54.9	-0.5	48%

2-year (2010, 2011) yield data collected from large-scale, grower managed trials across Western Canada as of December 16, 2011.
 *2-year (2010, 2011) yield data from Alberta as of December 16, 2011.



Grow more. Make more.



In 2011 Canola Performance Trials

Higher yields. Higher quality.

Stoller products have played a very important role in our progression to higher yields and better quality crops on our farm and our customers' farms.

Ben Hudye, Grower & Retailer
 Hudye Soil Services, Norquay, SK

HIGHER YIELDS HIGHER PROFITABILITY



Get more from every acre

Vital nutrients are delivered in a ratio best suited to the productivity of each and every plant.

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With Innovative
FUSION
 TECHNOLOGY

Keep Your Perspective Simple

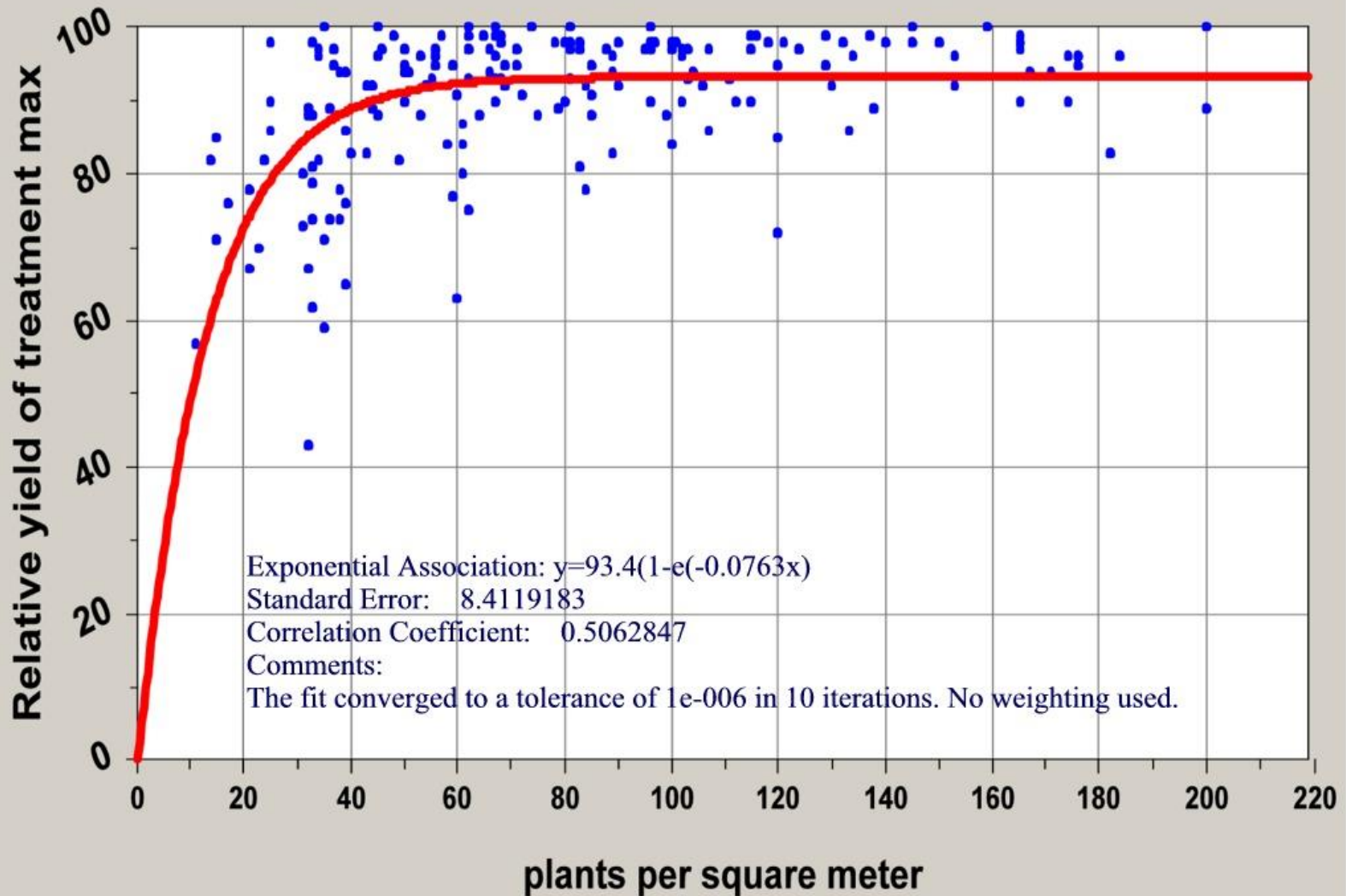
- Things to keep in mind when considering new product / practice
 1. Response claims based only on function or content in plants should be ignored
 2. Western Canadian field trials conducted by unbiased researchers trumps data from those with vested interests and sponsored testimonials
 3. Spend money only on things with a good chance for response based on many trials

What's “a good chance”?

- Is there at least 15 to 20 location – years of data across the prairies?
- Response classes:
 - Probably – positive response in more than 50% of the trials
 - Maybe – positive response in 25-50%
 - Unlikely – positive responses less than 25% of the time or sometimes negative response
- Lastly consider magnitude of response in addition to consistency

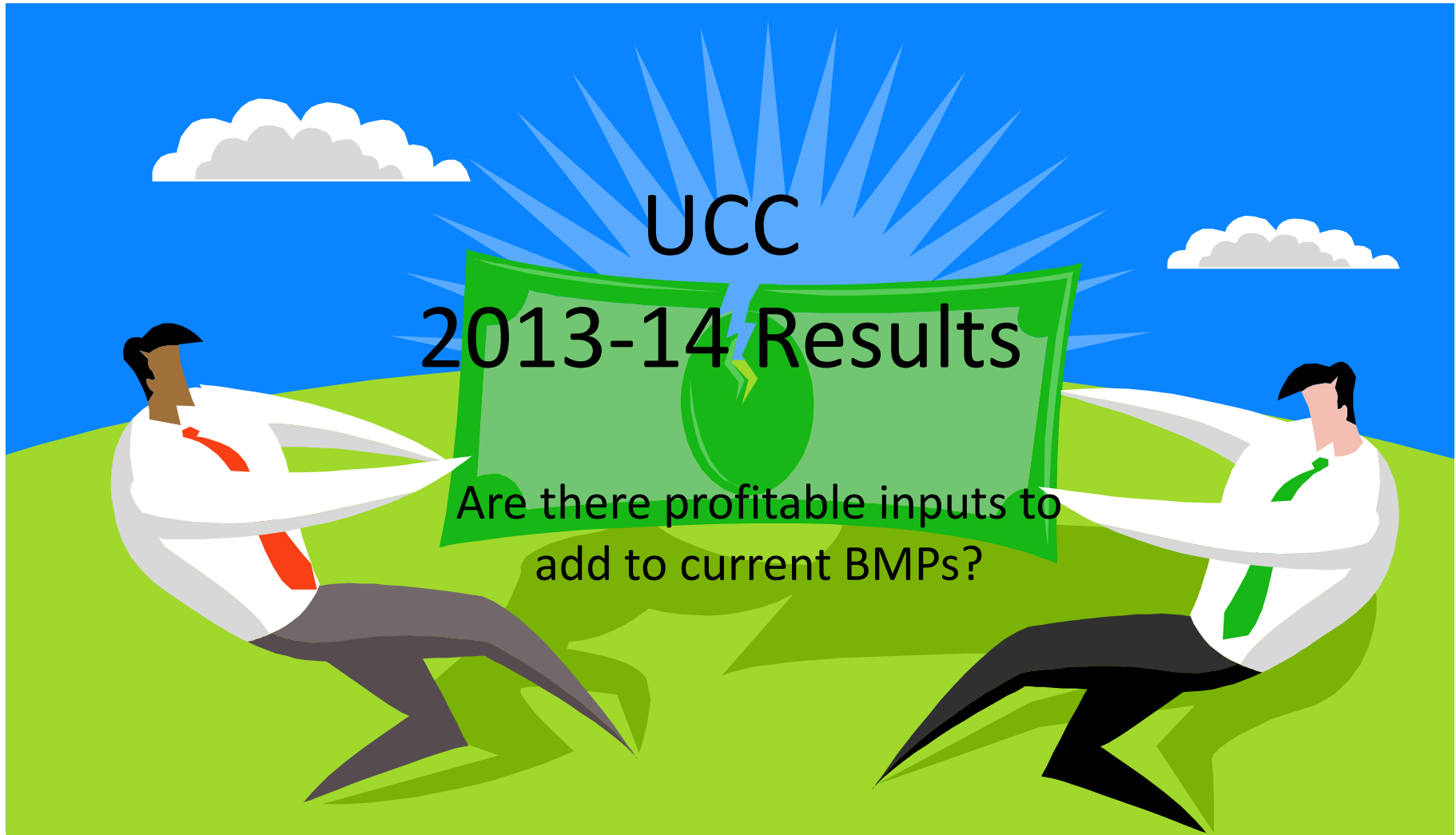
What about extra seed?

Hybrid density vs relative yield



What about extra fertilizer?

- More N?
 - Or more costly “enhanced efficiency” forms of N?
- More P?
 - Biological P inoculants?
- More S?
- Micronutrients?
 - Foliar vs seed primers?



Funded by provincial canola commissions
Levy dollars for product efficacy verification

Which products to test?

- Canola Council of Canada agronomists, Dr. Neil Harker (AAFC) and Murray Hartman (ARD) picked products based on amount of inquiries and personal interest
- Compare to a Best Management plot
- Seed primers (Precede and Protinus)
- Biostimulator (penergetic P)
- Boron (two different timings in crop)
- +/- 25% N fertilizer rates / top dressing
- 50% more seed
- Foliar “stress relievers” (C3, Fortified Foliar)
- CO₂ fertilizer (AGROSOLution)
- In 2014, individual cooperator could add another treatment of interest

How and where

- Small plot experiments with AAFC and ARA's across AB, SK and MB
 - Pre-planned contrast analysis
 - More sensitive than general ANOVA and suitable for comparing treatments only to BMP
- 2013: 2 levels of trials (# of treatments)
 - Lacombe, Beaverlodge, Medicine Hat, Lethbridge, Manning, Neerlandia, Dapp, Forestburg, High Prairie, St. Isidore, Scott (SK)
 - Red indicates site was cancelled or dropped

2014 treatments / locations

- 2014: 1 treatment list + cooperator choice of an extra treatment
 - Lacombe, Beaverlodge, Lethbridge, **Medicine Hat**, **North Star**, Fort Vermilion, **Neerlandia**, **Forestburg**, St. Paul
 - Scott, **Melfort**, Swift Current, Outlook, **Indian Head**, **Prince Albert**
 - **Arborg**, **Beausejour**, **Winnipeg**

2 Treatment Lists in 2013

Standard (2013)		Expanded (2013 and 2014)	
1	BMP	1	BMP
2	Sideband N - 125%	2	Sideband N - 125%
3	Foliar N (UAN) - 125%	3	Foliar N (UAN) - 125%
4	Protinus Seed Primer	4	Protinus Seed Primer
5	C3 with herbicide	5	C3 with herbicide
6	Boron (flowering)	6	Boron (flowering)
		7	More Seed – 150 seeds/m ² (vs 100 in check)
		8	Less N - Sideband 75%
		9	Precede Seed Primer
		10	Fortified Foliar (5 leaf)
		11	BioStimulator (1 leaf & rosette)
		12	Boron (3-5 Leaf)
		13	AGROSOLUTION CO ₂ (2-4 leaf & 2 wk. later)

2013 N Applied (lbs N/acre)

Site	75% N	100% N	125% N
Beaverlodge	58	77	96
Lacombe	93	123	152
Lethbridge	47	62	78
Medicine Hat	43	58	72
Manning	0	33	61
High Prairie			
Forestburg		70	87
St. Isidore			
Scott			

UCC - 2014

All Sites – Emergence & Yield
5 Sites – 1000 kwt & % Green Seed

Unique Site Treatment

Single degree of freedom Contrasts



Indicates significantly < BMP (P < 0.05)



Indicates significantly > BMP (P < 0.05)

2014 N Applied (lbs N/acre)

Site	75%	100%	125%
Beaverlodge	78	100	118
Fort Vermilion	22	35	42
Lacombe	96	125	154
Outlook	74	98	123
Prince Albert	60	80	100
Scott	67	89	112
St. Paul	51	78	105
Swift Current	75	100	125

All Sites -2013 + 14 (17 locs) - Yield (bu/ac)

