

There is Opportunity in Every Challenge

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Potato Growers of Alberta**

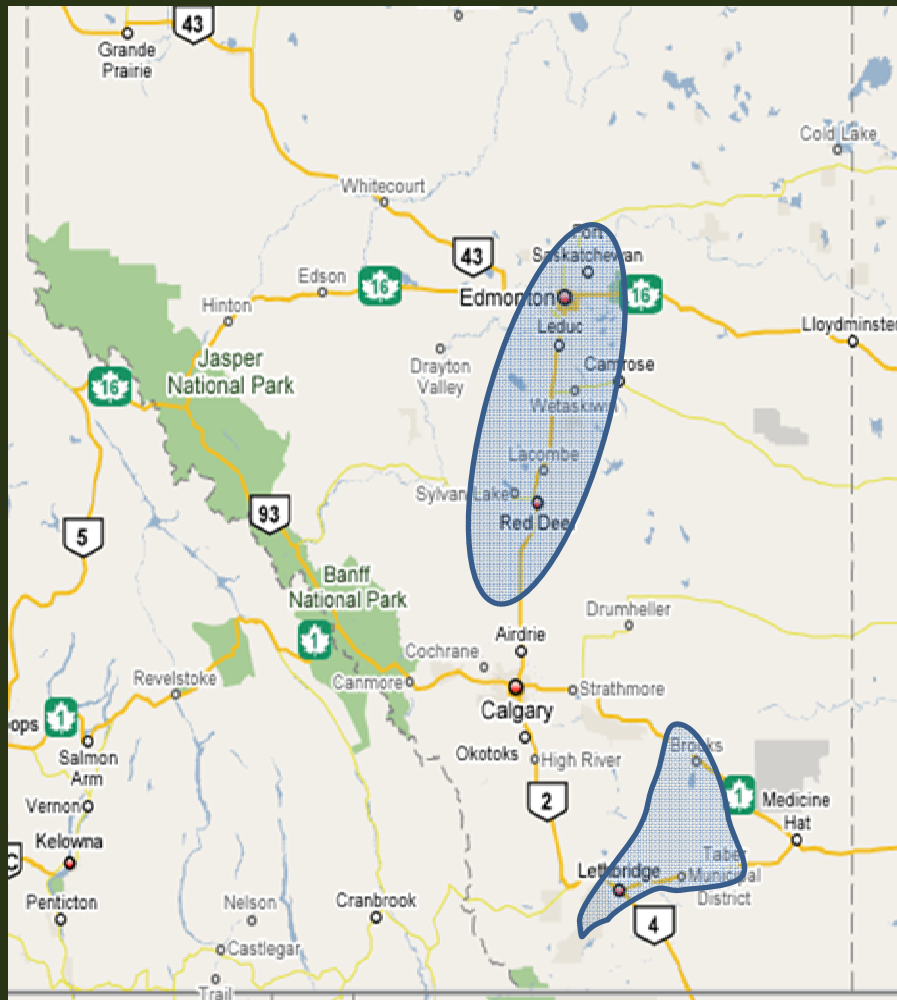


Alberta Potato Production - Overview

- 49,512 acres in Alberta
 - 37,656 process
 - 9,251 seed
 - 2,605 fresh/table
- Nationally third largest producer of potatoes in Canada
- 375,000 acres of production in Canada



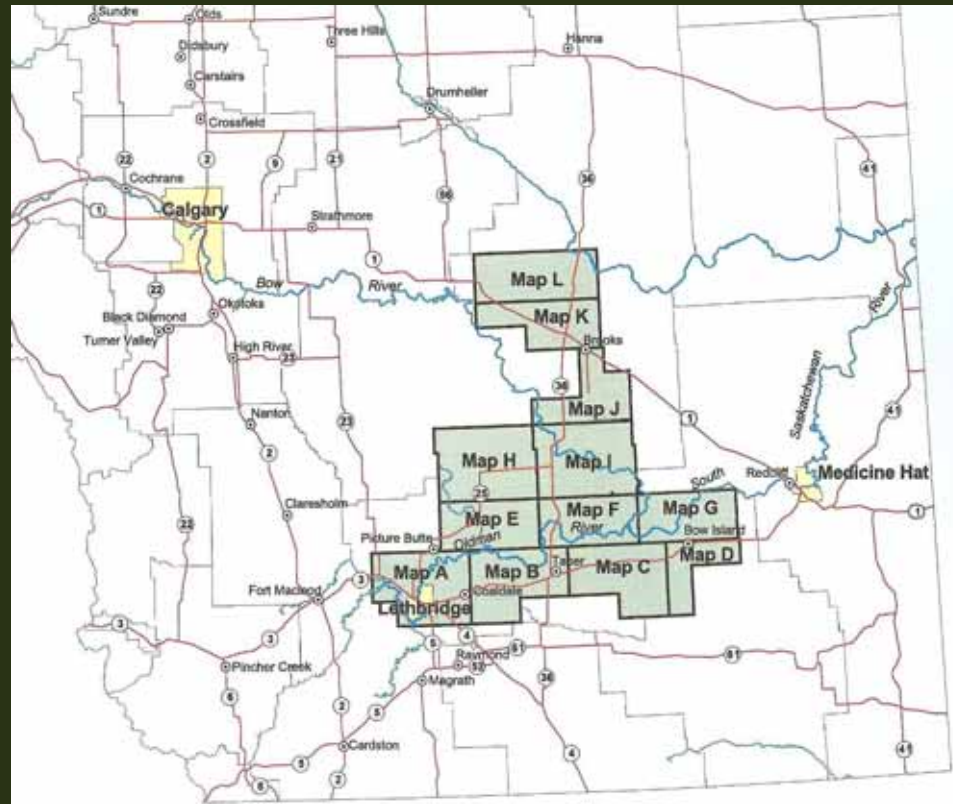
Alberta Potato Production - Overview



Potato Production – Expansion Opportunities

PFRA Study 2000

- 105,200 ha (260,000 ac)
- Suitable for Potato Production






Addressing the Challenges – PGA Programs

- Many production challenges for growers
- PGA has developed decision support tools and programs
- Potato Agronomy Management Forecasts
PAM-Cast Reports
- Wireworm Trapping Studies
- Aphid Monitoring Reports



Addressing the Challenges – PAM Cast Reports

PAM-Cast Potato Agronomy Management - Forecast August 15, 2009 - Fincastle					 		Powered By Irrigation Management Climate Information Network 					
Seven Day Summary												
Date	Temp Min (C)	Temp Max (C)	RH Min (%)	RH Max (%)	Precip	GDD	PDay	DSV	ET Canola (mm)	ET Sugar Beets (mm)	ET Shepody (mm)	ET Russett (mm)
09-Aug-2009	6.9	26.6	27.3	93.6	0.0	11.8	6.5	0	4.4	5.0	4.4	4.2
10-Aug-2009	10.4	27.1	29.5	88.8	0.0	13.7	7.8	0	5.0	5.9	5.2	4.9
11-Aug-2009	12.0	29.2	19.5	88.9	0.0	15.6	7.7	0	5.2	6.3	5.5	5.3
12-Aug-2009	11.2	24.5	33.1	91.0	0.1	12.9	8.3	0	3.2	4.1	3.6	3.5
13-Aug-2009	10.4	15.2	63.0	90.9	0.4	7.8	6.3	0	1.5	2.0	1.8	1.7
14-Aug-2009	9.1	18.7	55.3	94.8	3.7	8.9	6.6	0	1.9	2.6	2.2	2.2
15-Aug-2009	8.9	10.9	81.1	90.9	11.4	4.9	3.6	0	1.0	1.4	1.2	1.2
Season Totals					166.9	826.6	505.1	5	303.3	270.2	280.4	258.6
Surplus (+) / Deficit (-)									-136.4	-103.3	-113.5	-91.7
Predicted Water Use Next 7 Days (mm)									8.7	36.0	30.0	30.6
Seeding Date as of Forecast Date									5/10/09	5/15/09	4/22/09	4/24/09
Early Blight												
To control Early Blight, it is recommended that the first spray occur 300 Potato Days after the emergence of 50% of the plant. After the initial spray, the following spray schedule is recommended: June - every 14 days July - every 14 days August - every 10 days September - every 7 days					50% Emergence Date: June 05, 2009 Date PDays > 300: Jul 19, 2009 PDay Accumulation as of Aug 15, 2009: 505.1				Recommended Spray Schedule: First Spray Date: Jul 19, 2009 Second Spray Date: Aug 02, 2009 Third Spray Date: Aug 12, 2009 Fourth Spray Date: Aug 22, 2009 Fifth Spray Date: Sep 01, 2009			
Late Blight												
To control Late Blight, it is recommended that the first spray occur when the Disease Severity Index (DSV) reaches 18 points. Subsequent sprays are recommended when the DSV index increases 8 points within a 7 day period.					Current DSV			5	7 Day Change		0	
Forecast				Notes				Disclaimer				
Friday..Cloudy with 40 percent chance of showers. Low 10. High 20. Saturday..Cloudy with 30 percent chance of showers. Low 7. High 19. Sunday..Rain. Low 7. High 10. Normals for the period..Low plus 5. High 19.				Precipitation totalled from April 1st. GDD and PDays totalled from potato 50% emergence date of 05-Jun-2009. For more information regarding this report contact Jeff Bronsch @ the PGA office (403) 223-2282				The above information is developed from site-specific climate data using an agronomic model. The summary is intended to demonstrate disease pressure within the region. No claims are made as to the accuracy of this information for varying sites, conditions or cropping systems. The responsibility rests solely with the individuals who interpret and implement information from this report. The modeled results are intended to aid in decision making and by no means replaces the need for proper in-field monitoring.				



Addressing the Challenge – Wireworm Trapping

- 2008 set 700 traps in growers fields – industry initiative
- 2009 set 100 traps in growers fields – industry initiative
- 47 specimens sent for identification
- 13 Wireworms confirmed
- Do we have a wireworm problem?



Addressing the Challenge – Wireworm Trapping



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Addressing the Challenge – Aphid Monitoring

- In 2009 the PGA and Alberta Agriculture – Scott Meers setup 2 suction traps to monitor aphid movement
- Create a better understanding of Green Peach Aphid movement into Southern Alberta
- Monitor Weather or Environmental Conditions and Upper Level Wind Currents and Temperatures
- Reports email/faxed to growers and industry weekly



Addressing the Challenge – Aphid Monitoring



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Addressing the Challenge – Aphid Monitoring



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Addressing the Challenge – Aphid Monitoring



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Addressing the Challenge – Aphid Monitoring



Industry Challenge – Food Safety



- Developed by the Canadian Horticultural Council
- Developed for growers by growers and their associations
- Demand is coming from processor customers
- McCain and Lamb Weston require grower certification
- Growers on a 4 year audit cycle

”Is the rest of Agriculture ready for this?”



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Expansion Opportunity/Challenge - Water

- **Water shortages have been manageable but create concerns**
- **Do we need to put a value on acre foot of water?**
- **Need for Irrigation Energy Assessments**
- **Need to Evaluate aging Irrigation Equipment Performance**



Expansion Opportunity/Challenge - Water

- Pressure regulators have a useful life 10,000 - 14,000 hours
- 15" app. @ 1000 gpm pivot = 900 hours/year
- 11 to 15 year life span
- As a 15 psi regulator wears it may range from 5 to 25 psi creating bands of over or under watering



Expansion Opportunity/Challenge - Water



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Expansion Opportunity/Challenge - Water



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Expansion Opportunity/Challenge - Water



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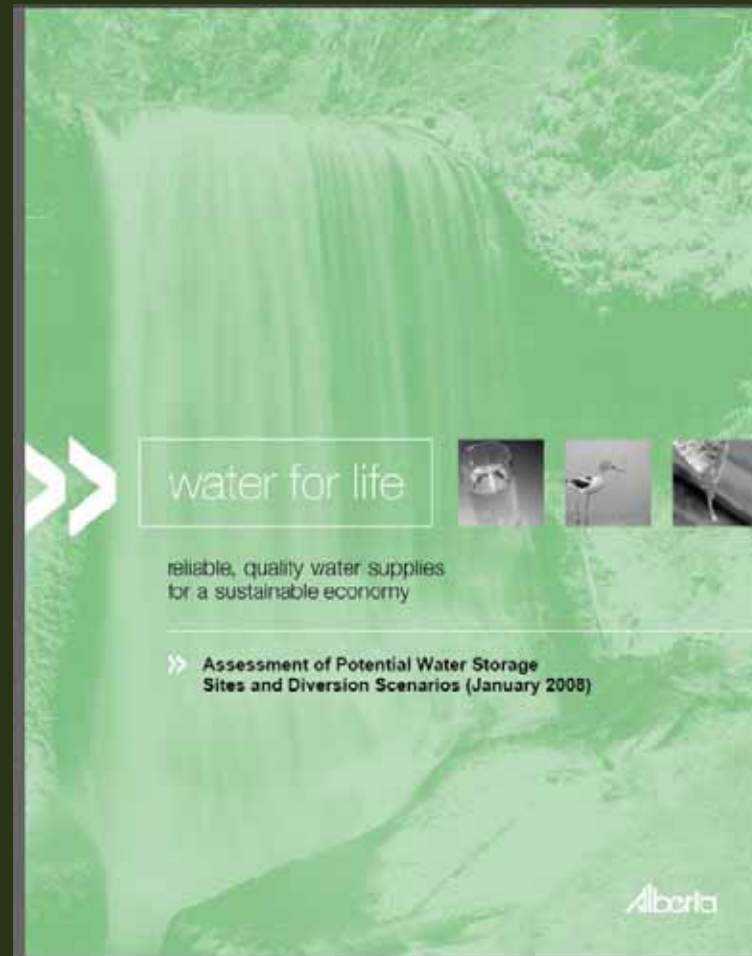
Expansion Opportunity/Challenge - Water

- End Gun Technology needs to Improve
- 70% of Irrigation in Alberta is under Center Pivot
- If all of these pivots are equipped with End Guns we push over 100,000 acre feet through end guns every year
- Potato Quality and Yield under the End Gun coverage can be affected by poor End Gun Performance



Expansion Opportunity/Challenge - Water

- 182 water storage/diversion sites assessed
- Where are we at?



Potato Production Research - Challenges

- Continued Potato Research Required
- Shrinking research science pool – Canada Wide
- The U.S. model – Ag Research conducted at Universities
- As demand for food increases world wide so will the production challenges

“Agriculture will require an increase in intellectual resources”



***”Challenges are what make life interesting;
overcoming them is what makes life meaningful”***

Joshua J. Marine



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Questions?



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