

Alberta Potato Committee Meeting
February 27, 2003

Information about the Alberta Potato Committee meeting

- The Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis was of the potato industry excluding the seed potato sector.
- Seed potatoes will be dealt with separately at a later meeting.
- Research ideas and priorities were then developed having this background information readily available.
- For further information about the process used to develop the research ideas and priorities for the Alberta Potato Committee please contact:

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Attendance at the meeting

Casey Bydevaate
Christine Murray
Dermot Lynch
Doug Walkey
Ed Unser
Ed Vandenberg
Hal Reed
Harold Perry
Ian McGillvray
Jan Bennen
Jerry Zeinstra
Lindsye Dunbar
Lori Delanoy
Luke Wyna
Mark Goettel

Mark Miyanaga
Michele Kenschuh
Mike Wind
Mitch Cook
Peter Mitchell
Qin Chen
Richard Motokado
Roger Hohm
Ron Howard
Roy Shewchuk
Russ Stewart,
Shelley Woods
Simone Dalpe
Tom Machacek
Vern Warkentin

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Strengths

- climate usually favors reduced pesticide use (excluding last few years!)
- lack of insect resistance
- lower disease/pest pressure
- isolation (prevents disease spread)
- room for expansion
- rapid growth
- size – still manageable
- soil quality
- water/irrigation
- reputation
- reasonable costs of production
- proximity to market → processors
- local processing/value-added
- good market potential
- grower knowledge
- experienced growers
- progressive producers
- experienced industry/organizations
- investment of industry, manufacturers
- cohesion of growers – PGA/strong grower base/negotiating power
- association/industry support
- agronomy/research/extension support available
- research community nearby and size/diversity of staff
- sharing of information
- Western Canadian Potato Breeding Program
- quality
- consistency – crop (except 2002?)
- high SG, good colors (usually)

Weaknesses

- water – limited water supply
- LT sustainability of industry:
 - water availability
 - rotation
 - land base
 - financial

- resistance/disease/insects with ↑ acres
- ↑ acres
- short growing season
- high costs of production
- high risks (especially weather)
- balance own needs/priorities vs. industry needs vs. crop needs – sustainability
- limited expansion
 - soil type
 - irrigation
- rotation pressure
- limited knowledge of potato industry environmental concerns:
 - soil residue:erosion
 - timing effects of pesticides
 - micronutrients:foliar effectiveness
 - nutrient management plans
- tunnel vision in the industry
- vulnerable to public criticism
- limited pesticide registration
- lobbying (lack of)
- petiole standards for Alberta
- politics – federal/provincial/international
- location (proximity to markets) – main markets – Japan/China
- product diversity
- starch
- ‘B’ line products
- lack of grower involvement
- poor communications
- secretive attitudes
- strategic planning
- diluting efforts – not focused
- not enough AB based research
- net-working with universities/colleges
- variety (Russet Burbank)
- susceptibility to “snake oil” salesmen

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Opportunities

- growth/value-added by-products and finished product diversity
- non GMO/food safety
- end-use specific marketing PGA (fresh market)
- product diversity
- currency advantage
- “green” label → WWF
- branding (fresh market) “Alberta Potatoes”
- EFP can be an industry opportunity
- environmental issues
- diversity of growers → everyone can contribute in a different way → U.S. vs. Europe vs.
- employment opportunities
- corporate farming
- land development
- growth potential
- heavier soils (expansion)
- genetics
- new varieties (better yield/quality)
- variety expansion
- identity preservation (IP)
- leadership in R & D
- agronomic knowledge
- water use efficiency
- work with other producer groups
- improve communications
- progressive producers
- networking
- lobbying

Threats

- climate
- global warming/cooling
- potato industry growing too quickly
- land base → lots of competition/land rent
- limited suitable land available
- rotation
- competition
- rising cost of land/inputs
- rising cost of utilities
- corporate farming
- overproduction in USA/Western Canada
- agriculture losing importance ... urban vs. rural
- government (urban vs. rural vote)
- consumer perception of product – public
- consumer boycott (misinformation)
- consumption trends
- stability of processors – dependent on them
- trade issues
- FTA with U.S. – selling out water
- water availability
- environmental concerns
- elimination of pesticides available
- trace ability of chemical residue
- EFP (environmental farm plans)
- resistance caused by regulations – chemicals available, but not allowed to use them
- loss of chemicals – PMRA re-evaluation of chemistries
- pest management
- erosion issues

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Research ideas developed at the meeting

All those in attendance placed a value on each idea. The value for each idea was totaled after the meeting. Each person was given one, \$10, \$5 and three, \$1 with which to vote on what they felt were the more important research ideas. Each person was allowed to “spend” their money in any way they chose.

The Top Eight Ideas

Value	Research Idea
64	1. Petiole standards for optimum crop management → yield – best bang for your buck – want standards set for irrigated conditions in Alberta → fertigation – how much and how often → nitrogen uptake in relation to growth stages
54	2. Rotation → erosion control/long-term sustainability, disease pressures, shorten rotations without land mining, good seed/less virus/disease
44	3. Western Canadian Breeding Program
36	4. Irrigation/water use management → Water efficiency relating to timing of irrigations, varying soil types, sprinkler/nozzle types (compaction issues with low pressure systems), infiltration of water, ruts/wheel tracks → Irrigation in relation to soil types
27	5. Evaluation of products (example blend, wet soil)/product comparisons
27	6. Pest resistant varieties
27	7. Skin set after topkilling
25	8. Storability related to vine management

The complete list

Value	Research Idea
	Chemicals
13	9. Timing of herbicide applications (example – Sencor application when it is cold, Prism application when it is hot)
5	10. Registered Chemicals: Residue persistence under irrigation → are timing restrictions different for different soil types (example – irrigated sandy soils vs irrigated clay soils)
0	11. Pesticide database development/residual effects of pesticides
0	12. Minor use research permits for non-registered products
	Fertility – establish fertility levels for Alberta
64	13. Petiole standards for optimum crop management → yield – best bang for your buck – want standards set for irrigated conditions in Alberta → fertigation – how much and how often → nitrogen uptake in relation to growth stages
12	14. Grower education for maximizing yield and quality → damage (fresh market); specific gravity (processing); overcome negative perception from last decade

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5	15. Nitrogen efficiency/requirements (sandy vs. clay soils) both on tuber quality, environment and variety differences
1	16. Soil mobile nutrients – water soluble nutrients → more of an understanding of alternatives/nutrient use and availability/composting (water infiltration)
0	17. Timing of fertilizer application
0	18. Nutrient uptake (example Sulfur) → snake oils
0	19. Do micronutrients work?
0	20. Green manure
	<i>New/Alternative Products</i>
27	21. Evaluation of products (example blend, wet soil)/product comparisons
1	22. Humic acid for making nutrients more plant-available (nutrient uptake)
1	23. Soil conditioners (longer-term) – penetration, solubility/soil surfactant – flowability in soil
	<i>Water</i>
36	24. Irrigation/water use management → Water efficiency relating to timing of irrigations, varying soil types, sprinkler/nozzle types (compaction issues with low pressure systems), infiltration of water, ruts/wheel tracks → Irrigation in relation to soil types
	<i>Storage</i>
25	25. Storability related to vine management
17	26. Storage parameters/management
8	27. Storage chemicals – effectiveness comparison/OxiDate, Purogene, O ₃ tunnel
0	28. Effects of hail on crop storability
	<i>Genetics/Breeding</i>
44	29. Western Canadian Breeding Program
14	30. Variety selection/profiling for size, gravity and long-term cold storage qualities
14	31. Early maturing varieties
27	32. Pest resistant varieties
	<i>Skin/Tuber Set</i>
0	33. Skin set on fresh market spuds
27	34. Skin set after topkilling
6	35. Red skin color retention
	<i>Communication</i>
0	36. Development of comprehensive tech transfer/extension program
0	37. Adapting current research projects to Alberta conditions
	<i>Environment</i>
54	38. Rotation → erosion control/long-term sustainability, disease pressures, shorten rotations without land mining, good seed/less virus/disease
5	39. Green certificate program for Alberta
2	40. Reduced risk pesticides

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1	41. Fall field management for erosion control (long term)
0	42. Environmental sustainability/land stewardship
0	43. Soil erosion (wind, water)
0	44. Monitoring environmental programs – know your critics
0	45. Use of alternative energy (wind, solar, etc)
	Cultural/Rotation/Diseases
11	46. Bed planting (row spacing) compared to yield differences (variety differences)
10	47. Climate conditions monitoring for disease control
8	48. Pest surveillance (IPM)
3	49. Tillage efficiency (rising fuel costs) → types of points, reduces tillage, lumps/compaction
3	50. Biological systems (organic, biocontrol, fertility)
3	51. Colorado Potato Beetle resistance – need to pro-active
2	52. Rotation – year before – crop, pesticide residue, preventing compaction
1	53. Cut seed vs. single drop (yield and quality)
0	54. Pest and disease management (on-going) → forecasting with climate stations, new products, cull piles, critical mass of knowledgeable individuals necessary
0	55. Rotational crops that fit in potato rotation
0	56. Gibberellic Acid for set increase
	Equipment
0	57. Equipment efficiency – harvesters
0	58. Equipment evaluations
	Marketing
19	59. Healthy fast foods using potatoes
12	60. Market research/consumer attitude/potato use trends, new markets
5	61. Functional food/nutraceutical/industrial uses
0	62. Value-added product development
	Food Safety
1	63. On-farm food safety program
	Political
6	64. Human resource management, government policies/on-going support – more direct support, consistency and taking action from provincial government
5	65. Lobbying for unified pre-harvest intervals between Canada and US
	Demonstration
11	66. On-farm demonstration (larger scale) research/demo