2002

The Saskatchewan Plastics Industry Study

Diversification in the Saskatchewan Economy

Produced By:
Canadian Plastics
Industry Association
Western Region

Table of Contents

Executive Summary

The Saskatchewan Plastics Industry Study was commissioned by Saskatchewan Learning at the request of the Industry. Its objective is to document the current state of the Industry and explore the supports and activities needed to encourage growth and competitiveness in the global marketplace.

The Plastics Industry is a highly diverse and rapidly growing advanced manufacturing sector within Canada, and is a federal priority sector. The bulk of the industry is clustered in Alberta and British Columbia, Southern Ontario, and Quebec (over 2000 companies). The Plastics Industry in Saskatchewan is small but well established and has high potential for growth, especially into export markets in the northern United States.

The Plastics Industry in Saskatchewan is comprised of 42 companies directly involved with processing or fabrication of products. All but a few are cottage industry size with less than 10 employees and revenues under $1 million per year. There are small clusters in Saskatoon, Regina/Moose Jaw, and only one company has aboriginal ownership. There are no resin producers in the province.

Plastics adds a highly desirable element of diversification to the Saskatchewan economy and there are a wide range of processes in use. For the most part, clients are local but there are a good number of companies involved in export production to very specific niche markets within which they are least cost but relatively high quality providers, mostly to the United States. Agriculture is the predominant client sector for products manufactured in the province.

The Saskatchewan Plastics Industry is generally low tech, but supported by dedicated resources at the Saskatchewan Research Council. No specific plastics courses or training are offered within the province. The workforce is predominately full time and trained on the job with technical expertise developed in-house over time or acquired through out of province training, or recruitment within the Industry.

The Industry in Saskatchewan lacks cohesion and needs to collaborate to move to the next level of training and management support and collective action to resolve common issues.

The objective of all stakeholders is to encourage a competitive Plastics Industry in Saskatchewan that is sustainable and growing. Industry will work in partnership with stakeholders to seek opportunities to maximize growth and promote the competitiveness of the Industry. Certainly promoting awareness of supports and opportunities is a needed activity. Cohesion building is required in the province to position it as a competitive force within the larger context of the Western Canada Plastics Industry. Resources need to be developed to facilitate action.

Control of input costs and improved marketing capability is essential to create a strong US client base and increase penetration of the domestic market to allow the Saskatchewan Plastics Industry to achieve significant growth.

Recommendations:

The following recommendations were made:

1. Industry and key stakeholders will work in partnership with CPIA to facilitate utilization of the Industry association as a means of communication and development.
2. CPIA will establish virtual liaison between the Industry, government, training providers and other key stakeholders to jointly address issues of concern.
3. CPIA in partnership with Industry, government, training providers and other key stakeholders, will communicate educational and career opportunities in plastics to the aboriginal community and the general public, recognizing that the current size of the Industry in the province will not yet support its own development of programming. A special focus will be the aboriginal community with an aim to encouraging and facilitating entrepreneurial development.
4. In partnership with the federal government, CPIA will work to include Saskatchewan companies in Technical and Trade Missions. Where possible, access to CTN and other CPIA co-ordinated educational seminars will be provided.
5. CPIA will work with the Saskatchewan Government, in particular Saskatchewan Industry and Resources and Saskatchewan Learning, to ensure the Plastics Industry is given the opportunity to participate in the development of government policies that impact its competitiveness.

Acknowledgments

The Canadian Plastics Industry Association Western Region, and the Saskatchewan Plastics Industry Study Steering Committee notes their appreciation to all the organizations, businesses and individuals that have contributed time and effort to make this study possible.

This report would not have been possible without the participation of those who took the time to complete the surveys and participate in focus groups to determine strategies.

Members of the Study Steering Committee are to be commended for the time, effort, and support they contributed to the research and writing of this report. Their knowledge and commitment to the local requirements of the Industry was invaluable throughout the study.

This research was funded by Saskatchewan Learning through the Sector Partnerships Program. The role of Saskatchewan Learning is gratefully acknowledged, and, while Saskatchewan Learning was extensively involved in the study, the views expressed in this report are those of the Industry and the Industry stakeholders.

Saskatchewan Plastics Industry Study Steering Committee

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Methodology

CPIA carried out primary and secondary research as part of the study. Primary research results were validated through focus groups conducted with participants involved in the industry.

The following provides a brief description of the steps taken to complete the study and produce the final report:

Literature Review

No Saskatchewan plastics sector specific studies were found through either the Saskatchewan Research Council or the government. Capabilities listings were held by CPIA but required updating. This Study is the first to be taken to report stage and promulgated.

Survey

In order to gain a broad understanding of the operations, level of complexity and needs of the Industry, CPIA developed a survey instrument in consultation with the Steering Committee.

Contact data was obtained on over 300 companies involved in the retail of plastics in Saskatchewan. 42 were targeted as processors or manufacturers and detailed responses were received from 12 companies or 29 % of the Industry. The sample is deemed representative.

The survey was conducted by email, fax, mailout and telephone in February and March of 2002.

Validation

In April 2002, focus groups were completed in the cluster centres of Saskatoon and Regina as part of the validation of the survey results, and to gain further insights into needs and the strategies for addressing identified needs.

Profile of Respondents

At the time of the Survey there were only two CPIA company members in Saskatchewan. Both are branch operations headquartered outside the province. Most companies in the province can be considered as cottage industry size, though there are major exceptions. There are no resin producers in Saskatchewan.

By Size of Employment

Most respondent firms are very small with 11 having 50 or fewer employees, none between 51 and 100 employees, and only 1 having over 100 employees.

It is estimated approximately 700 people are employed by plastics manufacturers or processors in Saskatchewan. Of the respondent workforce of 235 people, only 13 were reported as being of aboriginal descent (5%).

By Employment Type

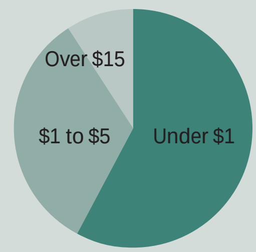
71 % percent of the respondent workforce is employed on a full time basis.

Profile of Respondents CONTINUED

By Industry Sales

58 % of respondents reported sales under $1 million per year (5 of which had revenues under $500,000), 33% between $1 million and $5 million and 1company over $15 million per year. There is a noted gap between companies grossing under $500,000 and over $1 million that indicates that the very small companies are having difficulty growing beyond their current market niches.

Respondents Profile Sales $(Million)



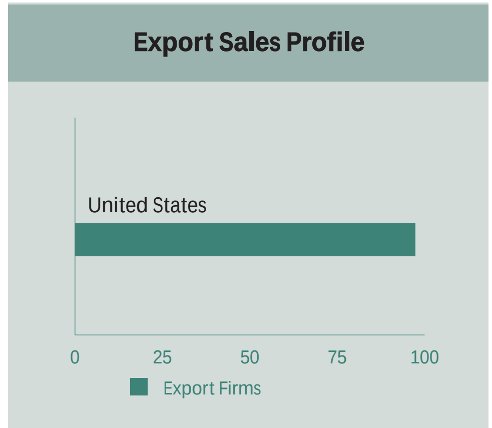
By Location

City/Town	From known data	By Respondent
Aberdeen	1	
Battleford	1	
Belcarres	1	
Estavan	1	1
Humboldt	1	
Melfort	1	
Moose Jaw	2	1
Neilburg	1	

City/Town	From known data	By Respondent
Saskatoon	16	5
St. Brieux	1	
Swift Current	1	
Regina	11	5
Vonda	1	1
Watson	2	
Yorkton	1	
Total	42	13

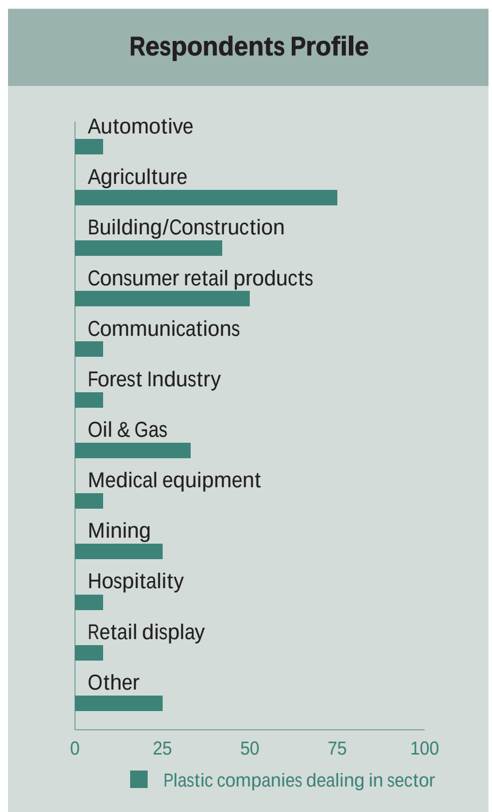
By Export Sales

58% of respondents report export sales, but only 25% of respondents have 50% or more of their sales outside Canada. Virtually all exporters sell exclusively to the United States.



By Sales Sector Destination

Plastics manufactured in Saskatchewan impact end user industry sectors with significant product inputs.



By Sources of Competitive Intelligence

Non Branch operations are relying on their own resources to conduct lead generation. There is a distinct lack of awareness of Competitive Intelligence (CI) processes and it appears no formal CI is undertaken by any of the respondent companies.

Source of Information	% of Respondents
Embassies or Consulates	0
Regional Agents	18
Industry Associations	33
Personal Research	58
Provincial Government	8
Federal Government	0

By Process

A wide spectrum of processes are used within the Saskatchewan Plastics Industry:

Type of Process	Number of Companies Involved
Assembly	3
Blow Moulding	1
Cast Moulding	1
Compounding	1
Decorating/Printing	2
Design/engineering	6
Equipment Supplier-thermoforming	1
Machining/tooling	2
Mold Making	6
Plastic welding	1

Type of Process	Number of Companies Involved
Prototyping	2
Recycling Plastic	3
Rotational Moulding	3
Thermoforming	2
Extrusion	2
Fiberglass	1
Injection Moulding	3
Laminating	1
Fabricators	2
Expanded Polystyrene	1

Profile of Respondents CONTINUED

By Product

Respondent companies often produce more than one type of product

Type	# of Companies involved in sector
Agriculture	6
Automotive	2
Bags	1
Bottles	2
Caps/lids	1
Building Products	3
Consulting Engineering	1
Consumer Products	2
Containers-domestic	5
Containers-industrial	5
Controls/Instrumentation	1
Custom Products	3
Dispensers	1
Display units	2
Electrical	2
Foam – Rigid/PVC	1
Furnishings	1
Garbage cans	2
Housewares/appliances	1
Industrial	3
Insulated Wall Systems	1
Molds	6

Type	# of Companies involved in sector
Marine	1
Medical/dental	1
Mining	1
Oil & Gas	3
Packaging	1
Plastic Lumber/fencing/decking	1
Printing/decorating	1
Product testing	1
Raw Material supplier	1
Recycled Plastic	2
Restaurant products	1
Ringbinders/clipboards	1
Rod	1
Sheet	3
Signs	1
Sporting Goods	1
Storage tanks	2
Toys/Recreation	2
Trays	2
Tubing	1
Other	1

Profile of Respondents CONTINUED

By Materials Used

Only a limited number of materials are used in Saskatchewan, and all materials except those recycled materials are procured outside the province on the global market:

Material	Number of Companies Using
ABS	4
ASR	1
Acrylics	2
Alloys/blends	1
Colour concentrates	1
Different Tool steels	5
EPS	1
Fiberglass (raw)	1
HDPE	4

Material	Number of Companies Using
Nylon	1
Polyethylene	7
PET	1
Polycarbonates	2
Polyester	1
Polypropylene	2
Polystyrene	2
PVC	1
Vinyl	1

By Job Opportunities

CPIA is predicting major shortages of skilled labour within the Canadian Plastics Industry over the next 8 years. There is not any sense of apprehension in the Saskatchewan Plastics Industry at present, and an assumption that the situation will remain constant.

Noted below are the positions required among respondents over the coming year:

Position Title	Vacancies Anticipated
Managers/management	1
Supervisors	2
Sales and Marketing	1
Production worker/Technician	5
Labourers	3
Mold Makers	1
Engineers	3
CNC Programmers/Operators	1
Quality Assurance	1
Finance	1

By Training

Training in plastics is not offered in Saskatchewan, and this lack of local training resources is seen as an obstacle by only 33% of respondents. Most training is presently conducted within each company, and if new skills are required the general practice is to recruit for those skill sets.

Note that 41% of respondents indicated that they would be willing to take students on a work/study placement basis.

Source	Number of Companies Utilizing
Formal In-House Training	3
On-The-Job Training	9
Use of Private Training Consultants	2
Use of Supplier Provided Training	1
Joint Training with other Companies	0
Training Provided by Trade Associations	0
Use of Out of Province Colleges or Education Systems	2
SIAST	2

When asked what types of specific training would benefit the company, respondents listed the following:

- Trade schools certification (unspecified)
- Basic mechanical and printing skills
- Rapid tooling and prototyping
- Injection moulding operation
- Training in rotational molding
- Mold making
- Thermoforming operation

By Research & Development Activity

Saskatchewan has good R&D support through the Saskatchewan Research Council and the IRAP program. It appears however, that only half of the Industry has any R&D interest. Six of the twelve respondents are planning to conduct R&D over the next year or will be introducing an R&D capability. Areas of primary R&D interest include new product development, new technology use and development, and production efficiency development.

By E-Business Capability

Connectivity appears to be an issue in the Saskatchewan Plastics Industry, although the situation is slowly improving. Of respondent companies, 30% indicated that they would create a web presence in the next year, and 17% were interested in web and e-commerce capability. Only 40% are currently using e-mail.

By Quality Control Program

Only 4 respondent companies have a formal quality control program (one is an in-house system) and the remainder were not contemplating introducing a formal program in the future. Programs in place include ULC, HACCP, and Can/CGSB-43-126-94.

Note that the introduction of the national CPIA Sustainability Management Plan will encourage increased as well as better-integrated quality control processes.

By Technology

Over the next three years, 75% of respondent companies will be modifying or adding production equipment, or a new technology or process to their capabilities. 58% are planning to update or add to their computer systems.

By Business Climate

The recent global recession had a relatively light impact on the Industry in Saskatchewan. The long term outlook varies depending on company perspective and certainly there is a lot of concern over the changing nature of agriculture and how it will adapt, grow and diversify to support the general economy in the province. That said, prospects for plastics are generally viewed as favourable, with four companies planning to expand in 2002-2003. Two firms are contemplating merger or a strategic alliance and only one is contemplating being purchased. Five companies are interested in starting to export, with the US being the primary target.

Cost of transporting goods, costs of attending trade shows for marketing purposes, costs of labour, availability of financing, and high provincial taxation rates are seen as barriers to development.

	Companies indicating		
Issue	**Opportunity**	**Neutral**	**Obstacle**
NAFTA	4	6	2
Access to Markets	3	6	3
Access to Raw Materials	0	8	4
Transportation	0	6	6
Interprovincial Regulations	4	7	1
Skills of Existing Workforce	2	6	4
Access to Training	1	7	4
Cost of Labour	3	3	6
Availability of Financing	1	6	5
Environmental Regulations	2	7	3
Taxation	1	4	7
Energy Costs	1	7	4

Focus Groups

Focus groups involving industry, educators and government, were conducted in both Saskatoon and Regina to discuss major areas of interest. The results were as follows.

1. Growth (and collaborative) activities and support should concentrate on larger companies with over $1 million in sales.
2. Companies generally do most of their recruitment at the entry level – training accessibility is an issue, but not a critical issue.
3. Skills are learned in the plastics industry by workers that tend to migrate to higher paying firms or other industries.
4. General industry awareness of supports and opportunities to increase managerial and corporate performance is low. Of special note is the lack of financial knowledge and financing sophistication in most firms.
5. Saskatchewan suffers from a "surplus back haul capacity", and this can be very problematic to companies producing for unique markets.
6. Communication must be of the "push" variety from CPIA and other stakeholders.
7. Most companies can't afford to market in an export environment that still has a large trade show component and a requirement for solid market intelligence.
8. Environmental issues focus on the lack of recycling of milk jugs, film, and polystyrenes in Saskatchewan.
9. There is a noted gap between the larger or high technologically oriented companies and most of the rest of the industry when it comes to quality and formalization of training. These high-end firms are relatively few and there is no spin off to the "cottage industry" level that makes up the bulk of companies.
10. Energy costs are presently a non-issue in Saskatchewan for most companies.
11. Perceived high taxation is felt to be a major disincentive and places Saskatchewan firms at a competitive disadvantage.
12. Communicating the sources of available training in Western Canada to Saskatchewan companies is needed.
13. While a potentially large aboriginal workforce is available, candidates often require lifeskills training before they are work ready.

Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

Strengths	How can strengths be applied?
• Access to growing aboriginal investment both human and financial.	• Plastics manufacturing deals with a global market, location is not necessarily a barrier. • Ease of entry makes plastics an attractive element in creating economic diversity.
• Access to Canadian Plastics Sector Council (CPSC) training modules.	• CPSC training resources can be used to train and upgrade employees.
• Access to low cost energy.	• Emphasize a quality lifestyle location and low cost of production.

Weaknesses	How can weaknesses be overcome?
• Small firms with limited resources significantly dominate the sector.	• Plastics SMEs can work through CPIA to partner with government agencies to identify opportunities.
• Limited management capabilities to grow firms to competitive size.	• Encourage small company owners to broaden their skills through management training or consultant mentoring.
• Limited investment in new product and process development.	• Encourage more R&D by linking small companies with NRC/IRAP resources.
• The Industry has a poor record of participation in collective initiatives.	• Push information out and continue to encourage participation.
• Venture and growth capital is often difficult to access.	• Encourage plastics companies to become more involved with CPIA.
• CTN in Manitoba and Saskatchewan has not tangibly partnered with CPIA Western Region to present programming.	• CPIA must forge a partnership to cover Saskatchewan needs.
• Most SME have no experience in government relations or collaboration.	• Educate politicians on Industry needs and companies on advocacy issues.

Opportunities

- Sector clusters are available in Saskatoon and Regina.
- The differential between the Canadian and US dollar is highly advantageous to the competitiveness of Canadian firms.
- North American demand for plastics is growing over the long term.

How can opportunities be exploited?

- Collaboration and development of consortia's for training and marketing purposes are a possibility.
- Encourage companies to explore new opportunities to expand trade boundaries.
- Encourage participation in CPIA Trade Missions.
- Promote the competitiveness of Saskatchewan, especially to bordering states.

Threats

- Low cost competition is attracting investment elsewhere.
- Capital equipment is expensive.
- Young workers are not being drawn to the Industry.
- Misinformation about the environmental impacts of plastics leads to very costly advocacy on behalf of the Industry.
- Taxation is viewed as a major disincentive and a competitive disadvantage.

How can threats be mitigated?

- Target higher value-added customers and encourage market strategies to reduce dependency on a few customers.
- Improve access to financial resources through management education.
- Educate aboriginal investors on the opportunities within the Industry.
- Target the aboriginal community as a source of workers and entrepreneurs.
- Educate all stakeholders on the advantages of plastics and careers in the Industry. Promote the CPIA Sustainability Management Plan.
- Apprise governments of the competitive situation in the Industry.

Vision

A competitive Plastics Industry in Saskatchewan that is sustainable and growing.

Mission

The Plastics Industry and the Canadian Plastics Industry Association, in partnership with government, training providers, aboriginal organizations and other key stakeholders, will seek opportunities to maximize growth and promote the competitiveness of the Saskatchewan Plastics Industry.

Strategic Approach and Recommendations

1. Industry and key stakeholders will work in partnership with CPIA to facilitate utilization of the Industry association as a means of communication and development.

2. CPIA will establish virtual liaison between the Plastics Industry, government, training providers and other key stakeholders to jointly address issues of concern.

3. CPIA in partnership with the Plastics Industry, government, training providers and other key stakeholders, will communicate educational and career opportunities in plastics to the aboriginal community and the general public, recognizing that the current size of the Industry in the province will not yet support its own development of programming. A special focus will be the aboriginal community with an aim to encouraging and facilitating entrepreneurial development.

4. In partnership with the federal government, CPIA will work to include Saskatchewan companies in Technical and Trade Missions. Where possible, access to CTN and other CPIA co-ordinated educational seminars will be provided.

5. CPIA will work with the Saskatchewan Government, in particular Saskatchewan Industry and Resources and Saskatchewan Learning, to ensure the Plastics Industry is given the opportunity to participate in the development of government policies that impact its competitiveness.

Next Steps

1. Distribute Report to all stakeholders (plastics companies, educational institutions, federal and provincial government agencies, trade commissioners, investors, aboriginal communities, and internally within CPIA).

2. CPIA will facilitate discussions on promoting training opportunities between plastics/manufacturing training institutions and potential Saskatchewan partners such as SIAST, etc.

3. CPIA will facilitate a collective approach to problem solving and issues management within the industry and with stakeholders. The steering committee will form the basis of a virtual committee to accomplish this over a wide geography.

4. Saskatchewan companies will be directly approached and encouraged by CPIA to participate with their peers across Canada in CPIA activities, advocacy, the national Sustainability Management Program (SMP) and SMP Certification.

Canadian Plastics Industry Association (CPIA)

CPIA is the voice of the Plastics Industry in Canada and represents over 70% of the export value of all plastics in Canada. Its mission is:

To advance the prosperity and

international competitiveness

of the Canadian Plastics Industry

in an environmentally

and socially responsible manner.

Through its regional offices and many technical councils, CPIA helps its members to excel, and provides leadership in technology access, health and safety, and the environment.

CPIA Western Region serves Saskatchewan through its Edmonton head office. It works closely with the Saskatchewan government, Canadian Technology Network, and many other agencies.

For more information on CPIA Western Region and its activities please contact:

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