The Saskatchewan herb and spice industry has the potential to increase exports 100% by 2010, and an additional 50% by 2020. This goal can be achieved by focusing on marketing and the increased consumer confidence that is expected to arise from the changing regulations for medicinal herb and spice products. In order for this to happen, there must be more people involved in all aspects of the industry, from growing to value-added processing and marketing increased research and development will be required.

These goals of industry growth can be achieved through import substitution with local products, increased revenues through value adding ventures, and more effective cooperation within the industry. The industry will focus on import substitution of natural health products with Saskatchewan produced products. Currently, 70% of Canadian manufacturers are importing natural health products and their ingredients, many of which could be provided in Canada.

With the introduction of Health Canada regulations affecting the medicinal herb sector, the imported products which do not meet new and tighter standards will not be permitted in the market. Canadian producers will have the opportunity to substitute for lower quality imports from countries that have less stringent regulations. Approximately 37% of Canadian imports of medicinal herbs (excluding ginseng and licorice) in 2000 were of low quality. Import substitution is an immediate growth opportunity for the medicinal herb sector in Canada. That means that between 2002 and 2010, the opportunity will open for Canadian suppliers to provide $120 million worth of medicinal herbs. Effective communication between growers and processors, will be required to meet the growing demand for quality medicinal herbs. Saskatchewan is positioned to meet this growing demand.

**A Vision of Growth**

“Currently, 70% of Canadian manufacturers are importing natural health products and their ingredients, many of which could be provided in Canada.”

**Strategies and Action Plan**

The following strategies and actions have been developed in coordination with the Saskatchewan Herb and Spice Association:

1. Establish a common vision for growth, and a commitment to that vision, from producers, processors, researchers, retailers and Government. Joint strategies and actions are necessary for the herb and spice industry to become a much larger contributor to the economy of the province and the country.

2. Form a national industry-driven organization in Saskatchewan based on the Saskatchewan Herb and Spice Association and the Saskatchewan Nutraceutical Network, which will coordinate national strategies for sector growth.

3. Pursue strategic alliances with national and international corporations demanding high quality natural products to assist industry in growth and development of world-class marketing capabilities.
4. Increase and expand the market for herbs and spices by working closely with the food industry and the Saskatchewan Food Industry Development Centre to introduce herbs and spices into high quality, value-added processed food products.

5. Develop and apply technology to isolate the active ingredients responsible for the health benefits of medicinal herbs in conjunction with the University of Saskatchewan, Agriculture and Agri-Food Canada, Plant Biotechnology Institute, and POS Pilot Plant Corporation. The regulatory environment supports this activity and the ability to show medicinal benefit significantly enhances the credibility of the product. In addition, standardizing ingredients gives consumers added confidence in natural products that are new to the market and are not widely recognized.

**Global Trends**

The global herb and spice industry is estimated at more than US$60 billion.¹ Growing consumer demand for herbs and spices include medicinal herbs, food flavourings, cosmetic and personal hygiene products (fragrances, creams, lotions), industrial chemicals, and feeds. The total value of herb and spice production in North America is estimated at over US$500 million.

Herbal medicines have the highest value markets and the most growth potential. Europe and Asia are leaders in the herb and spice market both in terms of manufacturing and consumption. However, North American consumption of medicinal herbs over the last four years has been increasing, and is expected to continue to increase.

From 1996 to 2000, Canadian exports of herbs and spices increased from $44 million to $67 million, an increase of 52%² Canadian imports during this time increased from $269 million to $437 million, an increase of $168 million. The exports for Saskatchewan during these four years increased substantially from $1.87 million to $6.79 million, a 263% increase.³ Canada exported $4.4 million in medicinal botanicals to the United States in 2000, while importing $17.8 million from the U.S. that same year.

The natural products and health food industry, which includes herbs and spices, has been growing at an average rate of 8% over the last five years.⁴ Average sales for manufacturers, distributors, and retailers of natural health products (which includes herbs and spices) from 1986 to 1998 grew 33%.⁵ The tightening of regulations in North America that support medicinal claims for natural health products will increase consumer confidence and demand for these products.

**Global Consumer Trends:**
- **Healthy lifestyles** are leading to consumers demanding products such as natural flavourings, organic foods, and safe dietary supplements. This important trend provides an opportunity for the growth in the demand for herbs and spices.
- **Ethnic cooking and quality restaurants** have generated a greater use of herbs. Purchases of **convenience food products** where herbs are being used for high quality flavourings are increasing.
- **Alternative medicine/therapies** have increased the market demand for medicinal herbs.
- **Essential oils** are growing in popularity for use in food and beverage flavouring and fragrances (perfumes, candles).

**Production and Marketing Trends:**
- **Wildcrafted herbs cannot meet growing world demand:** Much of the world’s supply of herbs is harvested from the wild and not from commercial production on cultivated lands. However, this is changing, as wildcrafted herbs cannot meet current world demand resulting in an increasing cultivation of herbs.
• **Larger scale production:** Herbs are often produced on a small scale with much hand labour and then processed with specialized equipment. However, in several instances larger scale production and processing of herbs and spices have been successful in Saskatchewan (i.e. borage, mustard, dill, coriander, caraway).

• **Quality supplies:** Suppliers and manufacturers are increasingly moving away from dealing with many small growers, instead choosing to deal with whoever can give them a high quality, high volume, and consistent product. This presents a great opportunity for growers in Saskatchewan to attract these suppliers and manufacturers by presenting a united front through cooperation and co-ordination of their marketing efforts.

• **New Technology:** There are a number of new packaging technologies that can provide longer shelf life and open distant markets for herb growers and manufacturers. Saskatchewan is a leader in such areas as the development of harvesting equipment and processes to extract higher levels of active ingredients from the herb.

### Current Situation

While the herb and spice industry in Saskatchewan is currently small, it is growing steadily with highly diversified production and products. Herb and spice production fits into four categories: medicinal herbs, essential oils, spices and dried culinary herbs, and fresh culinary herbs.

“Today approximately 225 producers in Saskatchewan grow over 50 types of herbs and spices.”

Over the past 20 years there has been a significant growth in the production and primary processing of herb and spice in Saskatchewan. The Saskatchewan Herb and Spice Association was founded in 1991 to develop the industry as a viable and sustainable industry. Today approximately 225 producers in Saskatchewan grow over 50 types of herbs and spices.

Approximately 36,500 acres of coriander, caraway, fenugreek and dill were produced in Saskatchewan in 2000. It is estimated that this acreage will increase to 40,000 acres by 2006, an annual increase of 1.8%. Other types of herbs and spices grown in small amounts include: Echinacea angustifolia, St. John’s Wort, feverfew, astragalus, anise, valerian, milk thistle, Scotch spearmint, comfrey, licorice, sea buckthorn, German chamomile, and portulaca.

Saskatchewan has significant production advantages including lower fixed production costs per acre and a unique climate, making it an ideal place to produce a number of herbs and spices. Saskatchewan’s long, sunny, hot days and cool nights put stress on plants used for oil production, increasing the amount of oil that may be extracted from the plant. This environmental stress also causes medicinal plants to produce higher amounts of various classes of secondary compounds that are responsible for health benefits. In addition, Saskatchewan has the most innovative and productive farmers in the world capable of producing a high quality consistent end product.

“The Canadian medicinal herb market has grown the fastest in Saskatchewan, and has the most potential for future growth. Saskatchewan’s exports increased 2038% from 1996 to 2000. Next highest was Alberta with 973% and Quebec with 88% growth over the same period.”

Saskatchewan targets . . . $70 million in herb sales, $75 million in essential oils sales, and $35 million in spice sales . . . by 2010.”

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With the rapidly growing consumer demand for medicinal herbs and value-added products, Saskatchewan targets an annual sales growth of 10% to 20% in the herb and spice industry over the next 10 years. This would result in a projected $70 million in herb sales, $75 million in essential oils sales, and $35 million in spice sales in Saskatchewan by 2010. Research and development, marketing / strategic alliances, and producer co-operation will be critical to the growth of this small, but valuable segment of the provincial agricultural industry.
The Saskatchewan Herb and Spice Association and the Saskatchewan Nutraceutical Network are widely recognized across the country as leaders in the herb and spice industry. They are seen by others in the industry as having the potential to grow into national organizations. This would attract researchers and value added processors to Saskatchewan while helping herb and spice growers.

The Governments of Saskatchewan and Canada have funded agronomic research in herb and spice crops. The new crop scientist position at the Crop Development Centre, University of Saskatchewan, will expand agronomic research in the herb and spice sector.

There are approximately 30 primary processing facilities in Saskatchewan, and eight that do value-added processing such as blending, encapsulation, oil extraction, preparation of sauces, and medicinal salves. The following highlights just a few companies in Saskatchewan that have emerged as leaders in the growing herb and spice industry:

- **Emerald Seed Products Ltd.**, located in Regina is a processor, marketer, and research and development company specializing in fenugreek extracts. They have developed products such as FenFiber™, Canafen™, and FenuLife™, which have uses as dietary supplements and functional food ingredients. The company is strategically integrated to world-wide markets through the FenuLife™ label.

- **Fytokem Products Inc.**, located in Saskatoon markets a group of skin care products developed from fire weed. They market to North America, Europe and Japan and have signed a distribution agreement with a German company that supplies such companies as Estee Lauder and L’Oreal.

- **Maple Ridge Farms** of Prince Albert is in the business of growing and extracting essential oils from a variety of spice crops such as Caraway, Coriander, and Dill. These essential oils are sold mainly into the food flavouring market as ingredients.

- **Natural Plantation Inc.** in the Wadena area is involved in processing and encapsulating the common weed portulaca into a product called “Super D Master.” Elsie Belcheff, a herbologist, developed the product from over three years of research, and began production in 1999. She currently is growing quickly from word of mouth testimonials and sales through the health food store market.

- **Nutravim Nutraceuticals** of Moose Jaw does custom processing of herbs including evening primrose, ginseng, feverfew, hemp and St. John’s Wort by performing encapsulation, tablet compression, bottling and labeling.

- **Paradise Foods International™** of Weyburn is active in hydroponically growing fresh culinary herbs, drying of organic herbs and spices and doing custom processing, prototyping, and test marketing of many products. They also have been successful in value adding with four kinds of pesto sauce, which they market to various retail and food service companies.

- **Sangsters Health Centres** of Saskatoon has developed its own line of almost 300 private label vitamins, minerals, herbs and sports nutrition products. It is one of the fastest growing companies in Saskatchewan and is actively researching and developing new products.

- **Wise Owl Herbs** of Unity purchases certified organic Echinacea angustifolia root for sales in Europe and North America. The company may expand its product lines to include such herbs as Echinacea purpurea, echinacea angustifolia, flowerheads, goldenseal, feverfew, St. John’s Wort and seabuckthorn.

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2 Strategis
3 Strategis
5 www.nutranet.org
6 Saskatchewan Agriculture and Food, 2001
7 Innovation Consulting Group, “Herb and Spice Market Assessment and Feasibility Study,” 2001
8 SAC Inc. forecast

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