

New Brunswick Wild Blueberry Sector Strategy 2013-2018

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Highlights

With growth in revenues tripling over the last decade, wild blueberry development continues to serve as a model for economic development that is both sustainable and builds on New Brunswick's natural potential for growth. The natural growing conditions necessary for the development of the crop exist in many regions throughout the province; often in areas where economic stimulation is needed. Provincial Crown land assets, also present in these regions, provide a prime opportunity for development. By the nature of this industry, its further development provides for a spectrum of opportunities for investment and employment throughout the province, including land clearing, land leveling, custom operations, production management, the sale of inputs, harvest and value-added product development.

Even with recent growth in the sector, New Brunswick has only managed to stay even in terms of world production, at 10-12%. In order to keep up with demand, New Brunswick must:

1. Develop at least 20,000 new acres over the next decade through a combination of private and Crown land;
2. Ensure adequate resources are available to maintain road access to existing developments and facilitate future expansions;
3. Improve the availability and use of pollinators to provide three hives/acre;
4. Research and adopt other productivity gains to improve productivity (on an Olympic average basis) to 3000 lbs/acre (from less than 2000 lbs/acre in 2011);
5. Increase private investment in new and existing acreage by improving the viability of the sector;
6. Focus on increasing in-province value-added processing capabilities to allow New Brunswick to fully benefit from a projected significant increase in production (and primary revenues).

Sector Definition

Currently, the New Brunswick wild blueberry sector is mostly comprised of small and medium sized farms and processing enterprises producing fresh and “individually quick frozen” (IQF) blueberries, with limited secondary processing aimed mostly at the local and agri-tourism markets. However, there is strong potential for expansion given opportunities to broaden product offerings, with wild blueberries turning up in products of all kinds, from cereals and muffin mixes to jams and jellies, from teas and juices to yogurt, smoothies and ice cream. Growth in the demand for wild blueberry products represents not only an opportunity to grow the primary production sector in New Brunswick, but also for New Brunswick companies to diversify or grow into the value-added food and bioproducts sector.

Industry Overview

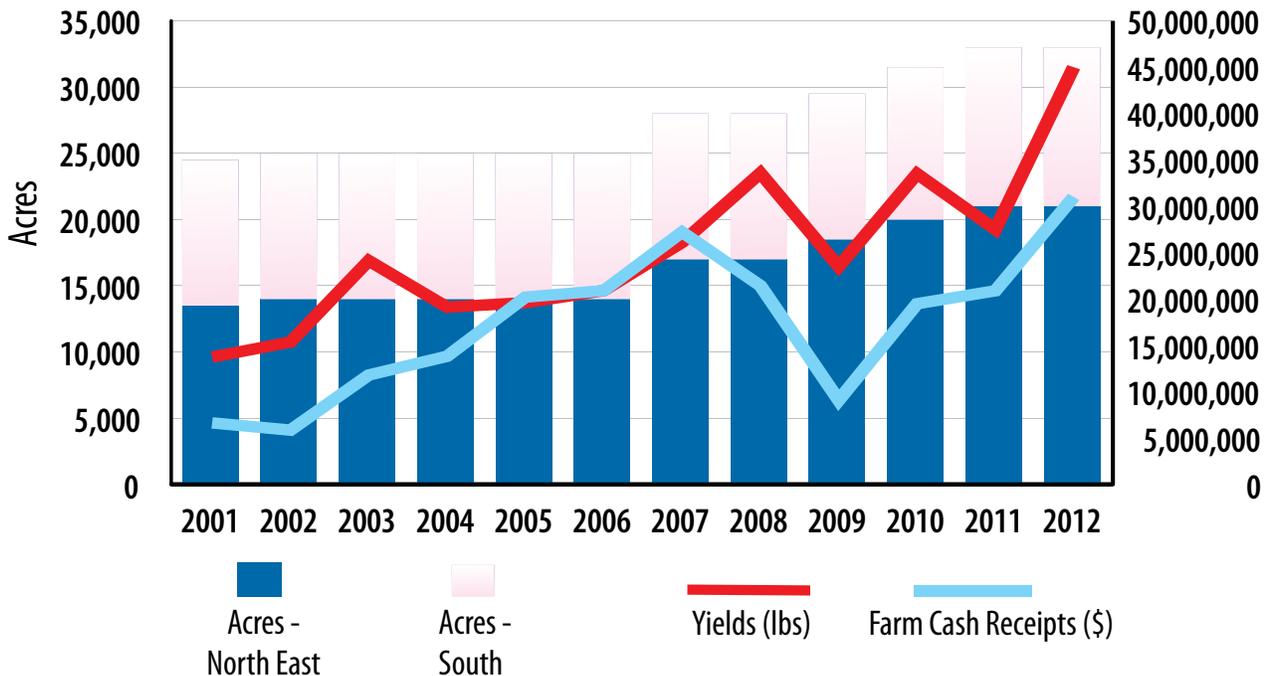
Wild blueberries are unique to north-eastern North America where they have grown naturally for 10,000 years. Wild blueberry fields are generally established from existing stands over a number of years through selective clearing of competing trees and shrubs. While wild blueberries occur naturally in most regions in New Brunswick, the Northeast is particularly suited to efficient production given it is easier to mechanize production on its naturally flatter ground.

Wild blueberries have proven to be one of the fastest growing sectors in New Brunswick, with revenue increases averaging over \$2.5 million each year in the last decade (or 25% a year). In spite of recent pricing downturns related to the recession, demand for wild blueberries has been buoyed by recurrent news about their health benefits. With twice the antioxidants of cultivated blueberries, wild blueberries are becoming known as Nature’s antioxidant super-fruit.

The sector is made up of approximately 220 producers represented by Bleuets NB Blueberries. Of the 33,000 acres of wild blueberries in production, a large portion (about 20,000 acres) is farmed on leased Crown land. As shown in the following chart, growth has been particularly strong in the Northeast as a result of targeted efforts by government to grow the sector. Approximately two-thirds (21,000 acres) of the acreage under cultivation is located in this region, with about 17,000 acres on Crown land and 4,000 acres on freehold. Wild blueberry fields will generally have their first crop after three years, but only come into full production after six to eight years. Therefore, with recently opened fields, production will continue to increase in the short term, even if no further expansion were to occur. Since the production regime harvests every other year and the total acreage is not split exactly in half, bearing and non-bearing, year-over-year comparisons in yield are misleading. However, the production of blueberries has more than doubled over the past decade to 45 million pounds in 2012.

Pricing in wild blueberries can be quite variable as it is affected by a number of factors, including inventory carryover (of frozen berries), exchange rates, the global economy, cultivated blueberry supply and the general demand for the processed foods that incorporate blueberry ingredients. Even so, the value of production at the farm gate has more than tripled over the last decade, to \$31 million in 2012.

Blueberry Acreage, Yields (lbs) and Farm Cash Receipts (\$)



Currently, only about one-third of New Brunswick’s blueberry crop is processed in-province and fresh consumption is considered minor. With high volume blueberry production already in Quebec, Nova Scotia and Maine and the large scale required to run an efficient processing facility, the New Brunswick industry is only now becoming large enough to justify significant investments in value-added. Currently, most of New Brunswick blueberry exports are captured within Quebec and Nova Scotia export figures, since most of our production is sold and processed in these two provinces.

To continue expanding international markets, New Brunswick producers and processors have joined forces with other wild blueberry producing areas through the Wild Blueberry Association of North America (WBANA) Canada. Joint promotion is conducted through in-coming and out-going missions, participation in major tradeshow, health research presentations, health research support, as well as articles and promotion in trade and consumer journals. With exports to over 29 countries, markets have rebounded to pre-recession levels in destinations such as the US, Germany, France, Japan and China. Export growth is now even higher in Scandinavia, other northern European and Korean markets, with a doubling or tripling of pre-recession purchases, likely due to the aforementioned health benefits of wild blueberries.

A review of the wild blueberry sector in New Brunswick reveals the following main strengths, weaknesses, opportunities and threats (SWOT):

Strengths

- Native crop suited to New Brunswick growing conditions
- Access to large tracts of land well-suited to blueberries that is unencumbered (Crown land) that can permit controlled development in a sustainable manner
- An Agri-Land Enhancement Strategy where government agreed with the goal of developing 25,000 new acres of Crown land for agriculture to 2015
- Good local technical expertise
- An organized industry (Bleuets NB Blueberries, WBANA)
- Production cost and quality competitive with other growing regions
- Good adoption of Integrated Pest Management practices
- High genetic variability reducing risks of catastrophic pest and disease outbreaks
- Geographical distribution of blueberry land throughout the province reduces risk to such things as poor weather and pest issues
- Early technology and practice adoption culture of New Brunswick blueberry producers

Weaknesses

- Length of time to access Crown land for development
- Insufficient seasonal labour availability
- Insufficient research and researchers to support sector growth
- Minimal value-added activity and low transformation ratio in-province
- Limited access to appropriate financing due to long establishment and payback period (six to eight years to full production)
- Lack of transparency from buyers/processors on pricing
- Limited access to high-quality pollinators
- Lack of effective regulations or enforcement to control theft and damage from trespassing
- Lack of availability of registered crop protection products used elsewhere
- No industry emergency response plan in place (food safety, environment)

Opportunities

- Increased productivity through improved soil fertility and pollination and the adoption of new technologies and cultural practices
- Strong market demand reflecting consumer desires for healthy and natural products.
- Development and production of new value-added food and bio-products, including nutraceuticals, by New Brunswick companies
- Synergistic partnerships (such as for cleaning/grading, pollination, marketing, etc) with the cranberry industry
- Growing global and domestic markets due to interest in healthy food
- Potential blueberry acreage following timber harvesting on Crown land

- Growth and development of allied service sectors, such as pollination, packaging and equipment

Threats

- Rapid global increase in cultivated blueberry production
- Fluctuating returns (price and yield variability)
- Environmental requirements, regulations and standards keep changing
- Urban encroachment
- Seasonal variability in weather, pest and disease pressures
- Wildlife predation (deer, bear, birds)
- Unstable health and viability of the honeybee industry and inconsistent quality of pollinators
- Generational transfer issues (viability, financing)

Several major drivers for growth in demand for wild blueberries have been identified, including:

- Increased consumer preferences for healthy foods
- Media awareness of health-related benefits
- Increased market access through trade agreements
- New uses in new food products increase the ingredient-based demand (vs fresh)
- Consumer concern for environmentally responsible practices and efficient use of resources (focus on wild, native plant with relatively low input requirements)

Strategic objectives have been developed under five pillars including People, Innovation and Productivity, Business Environment, Access to Capital and Infrastructure, and Marketing/Promotion. These flow directly from the SWOT analysis above and include initial work plan items required to fulfill each objective.

1. People

The wild blueberry sector is very dependent upon the availability of seasonal labour for harvesting, which occurs in August and September. Most other farm practices can be conducted either by the owner/operator or through custom service providers. With innovative new technologies and equipment, producers are able to manage more land with the same number of people. This is necessary since, as with other agriculture commodities, the availability of on-farm labour is declining even while the sector generates greater benefits to the rural economy.

Many owner/operators are part-time producers. Adoption of new and improved technologies requires a continuous learning approach for producers. This is particularly challenging in a sector where research is young and the potential productivity gains are largely untapped. Management skills are important to maximize productivity and to minimize costs and risks.

Strategic Objectives – People

- a) Work with industry to develop a comprehensive understanding of the sector’s human resource needs and the subsequent training requirements.
 - i. Develop a human resource profile for the industry.
 - ii. Develop a plan to address labour availability and training requirements to support sector growth.
 - iii. Assist in the coordination of seasonal workers with other sectors to provide longer season employment.
- b) Strengthen management capacity.
 - i. Develop and promote self-evaluation tools tailored to the sector under Growing Forward 2 programming.

2. Innovation and Productivity

As a relatively young sector, there are still many gains to be made in developing and adopting best management approaches to improve productivity and reduce risks. New methods to increase yields and decrease costs need to be investigated, such as cropping two out of three years (instead of one out of two) to provide higher yields overall. Pest and disease control methods are constantly improving, and new pests must be monitored and controlled as climate change shifts pest pressures. Fertility in the acid soils of a wild blueberry field is more complex than for other crops, and research is still ongoing with respect to productivity improvements through tailored nutrient applications. Pollination is a major contributor to a productive crop, and both native and supplied bees must be managed carefully to optimize yields. Mechanization of both the pruning and harvesting operations is becoming more and more common to adapt to labour availability and cost constraints. Precision farming could be particularly useful given the high variability within wild blueberry fields.

As is the case with all small agriculture commodity groups, the availability of products to assist in the management of pests can be limited by the relatively high investment incurred by crop protection companies to obtain registration for their products given the limited potential revenues from usage in a minor crop such as wild blueberries. The local research required to support these applications for approval to use products is generally funded by the Province and industry.

Development of new value-added product lines for wild blueberries has been largely untapped. There is continued potential for building on existing research capacity in bio-science product development to capture the health-promoting components of wild blueberries (eg. flavanoids) and developing innovative ways of including wild blueberries in processed food to increase demand. Innovation and investments in product processing technology and pre-commercial development efforts, as targeted in the New Brunswick Value-added Food and Bioscience Sector Strategies, are equally relevant in the encouragement of wild blueberry processing efforts.

Strategic objectives – Innovation and Productivity

- a) Stimulate investments in research to support continuous productivity improvement.
 - i. Leverage FPT research funds to support improvements to fertility, pest management, production management and pollination.
 - ii. Continue to develop data packages required to support minor use pest control product labels for priority pests.
 - iii. Assess the feasibility of the development and implementation of a pest and disease forecasting (hotline, applications for smart phones's etc) to improve pest control and reduce costs.
 - iv. Investigate the effectiveness of precision farming technology.
- b) Encourage adoption of best practices.
 - i. Develop a pollination strategy with industry and service providers to improve availability, quality and usage of pollinators.
 - ii. Improved dissemination of technical information to producers through Growing Forward 2 and other programming.
- c) Stimulate investments in technology adoption and new product development.
 - i. Improve technology transfer through funding toward technical missions and workshops related to recent developments, new technologies, and production management.
 - ii. Provide financial assistance to support new technology adoption for New Brunswick blueberry producers.
 - iii. Provide financial assistance towards research and development efforts of New Brunswick blueberry producers and processors seeking to diversify their operations through value added food and bio-product development.
 - iv. Assess the business case for investing in small-scale cleaning/grading, freezing and packaging equipment to improve the availability and quality of wild blueberries.

3. Business Environment

As interest grows in the marketplace for wild blueberries, development opportunities for primary and value-added production will result in increased pressure and demand on land use, particularly where the native stands of blueberries are so prevalent, such as in the Northeast of the province. A proactive approach will need to be taken to determine suitable land for wild blueberry and to develop effective policies within government for appropriate development opportunities.

Most of the existing wild blueberry fields on Crown land, particularly in the Northeast, were granted through a client-demand process. Some larger areas, such as those blocks developed west of the Tracadie Range, were established through a more proactive approach whereby the Department of Natural Resources transferred 25 blocks to the Department of Agriculture, Aquaculture and Fisheries

(DAAF). These blocks were developed in an environmentally sustainable fashion with increased buffer strips, wildlife corridors and windbreaks. These blocks were then offered to producers through a Request for Proposal process. While a less cumbersome approach for the producers, the competing interests remain the same whether Crown land is requested by the Department or by individuals.

In 2005 the Agri-Land Enhancement Strategy was approved by government. This strategy committed to the development of 25,000 acres of Crown land for the agriculture sector. The government is still committed to providing Crown land for blueberry production and has begun a pre-identification process to assess the suitability of Crown land for wild blueberries.

There have been recent concerns expressed about greater regulation and transparency in the processing sector. The Bleuets NB Blueberries (BNBB) agency lacks the legal authority to negotiate prices. BNBB was established in 2006 to fund research and promotional activities, not to regulate prices.

Wild blueberry producers are also frequently discouraged by the lack of rules, or the lack of enforcement where rules exist, to prevent theft and damage due to trespass (primarily) by recreational vehicles. Most blueberry producers do not live near their fields and cannot monitor and report these offences in a timely manner.

With respect to risk management, wild blueberry producers have access to federal/provincial/territorial business risk management programs such as AgriStability and AgriInsurance. Wildlife damage issues may also be managed through support for mitigation/prevention under Growing Forward 2.

Strategic Objectives – Business Environment

- a) Optimize use of Crown land to support economic growth.
 - i. Review the crown land leasing policy to ensure access to crown land for the blueberry sector.
- b) Ensure an environment which encourages increased business activity in New Brunswick.
 - i. Investigate potential means, regulatory or other, to encourage an increase in the proportion of the crop that is processed in-province.
 - ii. Ensure that the suite of Growing Forward 2 programs encourage growth in both the primary and value-added sectors of the blueberry value-chain.
- c) Develop an awareness strategy to promote the wild blueberry sector that, along with capturing more local market opportunities (Section 5), may also be helpful to promote local investment on private lands and discourage trespass activities.

4. Access to Capital and Infrastructure

Many wild blueberry producers are looking to increase their current scale of production. In the development stage, it can take six to eight years for a newly developed field to fill in and come into full production, resulting in a timeline that lenders will scrutinize closely.

Establishment costs to bring land into production are quite high. New Brunswick's wild blueberry growers need access to "patient" financial capital to expand and to make investments in innovation and productivity improvements. Farming leased Crown land, and securing long-term and operating loans with financial institutions (private and government) can be particularly problematic. Even on freehold land, revenue variability (due to price and yield risks) can make securing adequate financing very difficult, whether through private or "government" lenders. Succession planning is a challenge for all agriculture producers, including those in the wild blueberry sector.

Up-front infrastructure requirements to support growth of the industry for the long term are significant. Much of the suitable (or available) blueberry land is remotely located, and roads and bridges must be developed and maintained in order to access these fields. Where this infrastructure is developed for multiple producers, a consistent policy approach is required regarding responsibility or support for maintenance. In order to capture the significant economic benefits from large-scale development, it will be necessary to invest in safe and suitable access to these larger, often remote sites.

Cooperative approaches need to be employed beyond the access issue mentioned above. Where farms have insufficient scale to justify certain technologies or equipment alone, grower "groups" could be encouraged to share equipment or establish custom operations.

New Brunswick's wild blueberry industry has grown sufficiently to justify the establishment of more value-added processing in-province. Many of the economic benefits to the sector accrue beyond the primary production level, and these are mostly lost to this province. Increases in provincially-based value-added facilities are critical to capturing the economic benefits of the sector, and all avenues to develop this capacity must be explored. Increases in primary processing capacity can then lead the way to the development of additional secondary processing activities to enable New Brunswick to participate in more of the value-chain.

Strategic Objectives – Access to Capital and Infrastructure

- a) Ensure that financing programs encourage continued growth and development of the wild blueberry sector.
 - i. Review existing private and government financing programs to determine where gaps exist, particularly as they pertain to long-term field development, Crown land leases and succession planning.
- b) Encourage a cooperative approach to addressing infrastructure requirements for sector growth.

- i. Ensure that programming supports cooperative approaches to technology acquisition, custom service delivery, and equipment or product development.
- c) Investigate the options for encouraging investments in value-added capacity for wild blueberries, and accompanying that with secondary and tertiary processing activities.

5. Marketing and Promotion

Supported by the activities of WBANA, New Brunswick wild blueberries are in an excellent position to benefit from increased demand for health-promoting foods. However, the potential removal of tariff barriers immediately upon implementation of the Comprehensive Economic Trade Agreement (CETA) should be the focus of additional promotional efforts for Canadian wild blueberries even beyond WBANA activities (given that Maine will not benefit from CETA). Recent surges in demand in Scandinavia and northern EU countries indicate that the market in these countries is becoming more and more focused upon the anti-aging/antioxidant benefits of wild blueberries.

Given wild blueberries are not produced beyond Northeastern North America, it is uncommon for other countries to intentionally impose trade barriers against them to protect their local sectors. However, in previous trade agreements there has been “collateral” damage done to wild blueberries through confounding them with other fruits and berries. It will be important for Canadian negotiators to be regularly reminded of the distinctive nature of wild blueberries and their markets so that this does not occur in future trade agreements.

Many of the best potential markets for wild blueberries coincide with those for New Brunswick seafood and maple products. Developing cross-promotional material and funding joint marketing efforts and missions in some of these markets could enhance the interest level in export markets for all of these products.

While generally of low risk with respect to food-borne diseases, it could still be advantageous for wild blueberries to seek third-party “eco” certification to make further inroads in export markets (as well as domestic sales). Such certification programs require the concurrent development of traceability systems which are lacking in the New Brunswick wild blueberry value-chain. A good first step to take advantage of such market demands would be for industry to develop a traceability system consistent with national standards and the New Brunswick production and handling system.

On the domestic front, initiatives to encourage purchases of locally-produced food may help to open up new market opportunities for fresh/frozen and value-added wild blueberry products. With the potential to be marketed as a “produit du terroir”, wild blueberries could become the focus of efforts to differentiate ourselves and promote agri-tourism opportunities. With only a small proportion of product harvested for fresh sales, there has traditionally been little effort to promote local consumption. However, as interest in local foods grows there is scope for improved revenues for those producers prepared to invest in cleaning/grading equipment and labour.

Strategic Objectives – Marketing and Promotion

- a) Improve access to domestic and international markets.
 - i. Support WBANA efforts in a more focused Canadian marketing strategy to reinforce the interest in the health benefits of wild blueberries in northern European and Asian markets.
 - ii. Ensure that the uniqueness of wild blueberries continues to be highlighted to federal negotiators to ensure that tariff and non-tariff barriers continue to decline and that new market access is provided.
- b) Actively promote wild blueberries with emphasis on health and environmental advantages.
 - i. Seek opportunities to cross-promote wild blueberries in other food related marketing activities, such as trade missions for seafood or maple products.
 - ii. Investigate the opportunities to develop a traceability system for New Brunswick wild blueberries as a precursor to seek third-party “eco” certification.
- c) Ensure that wild blueberries figure prominently in “produit du terroir” and health benefit local marketing campaigns.