



**PHILIPS**

Horticulture  
LED Solutions

Case study  
Ecobain Gardens

Saskatchewan, Canada



Philips GreenPower LED production module

# Ecobain Gardens supplies **locally and sustainably-grown fresh greens and herbs**

Using Philips GreenPower LEDs, Ecobain Gardens is leading the way in the city farming revolution

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“Using Philips LEDs, we’ve experienced great results: very fast growing times, amazing colors, great biomass and aromatic and tasty produce.”

**Brian Bain**, Founder and CEO



### The solution

Bain approached several commercial companies to determine the best lighting solution for his project. Limitations of traditional high-output fluorescent lighting included short bulb life, high energy consumption and high heat output, which would require an expensive HVAC system.

Philips LEDs proved to be a much more favorable short- and long-term investment.

- Low energy consumption and power draw eliminating need for expensive configuration of the facility’s electrical panel
- Long operational lifetime with low fixture replacement costs
- Minimal radiative heat enabling better utilization of layered growing space
- Flexibility to use a light spectrum tailored to optimize growing conditions and produce a better end product.

In addition, Paul Boers Ltd, the Philips Horti Partner supporting the Ecobain project, worked with Philips and SaskPower to define a rebate structure, which resulted in a rebate of more than \$70,000 Canadian dollars.

### Benefits

Growing under Philips LEDs, Bain has noted shorter production cycles, uniform intra layer growing, less tip burn and more appealing coloration.

In addition, Philips LED production module produce 100 BTU/h less than the T5 HO fluorescent fixtures thereby significantly reducing heat in the growing environment. Bain’s return on investment analysis showed a five-year savings of more than \$100,000 with Philips LEDs:

- Cooling requirement reduced by 27 refrigeration tons, saving as much as \$10,000 per year in HVAC operational costs
- Lighting energy costs savings of up to \$30,000 per year

Reflecting upon his decision to go with Philips LEDs, Bain commented, “At the end of the day it’s just a high end solution that we can rely on that comes with amazing customer support and we’re absolutely thrilled to be growing with Philips.”

Learn more at [www.philips.com/cityfarming](http://www.philips.com/cityfarming)

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We want to build **cost effective, smart, productive farms** to safely service a massive void we have in our food system.”

**Brian Bain**, Founder and CEO



### Background

Combining a deep interest for agriculture and an entrepreneurial spirit, Brian and Roberta Bain founded Ecobain Gardens in Saskatoon, Saskatchewan in 2013.

Shortly after completing a diploma program at The Saskatoon School of Horticulture, Brian Bain, a self-described geek when it comes to anything involving plants or hydroponics, moved ambitiously forward on his vision to bring sustainable agriculture to the local Saskatoon community.

The current Ecobain Gardens facility includes 1,800 square feet of dedicated growing area with a plan in place to double the growing space by next year.

Currently, Ecobain Gardens is selling their freshly harvested greens (basil, dill, cilantro and mint) to cafes and restaurants in Saskatoon and selling live herb and micro pea products through retail channels. In addition, mini micro trays are being sold to customers throughout Canada.

### The challenge

Traditional cereal and pulse crops like dried peas, beans and lentils are the focus of 97% of the farming in Saskatoon, and 91% of produce is imported.

Bain recognized the need for locally-grown, nutrient-rich leafy greens, microgreens and herbs. However, in attempting to secure financing for the non-traditional farming project, Bain faced a challenge in generating support for a project based on a revolutionary form of agriculture. With a steadfast commitment to his vision, Bain turned to the private sector to generate capital to build the farm.

Using up to 90% less water, eliminating harmful chemicals or pesticides, using the newest energy-efficient lighting, and reducing travel time and in turn, spoilage rates, Bain’s city farming model is highly sustainable and ensures consistent access to fresh and healthy produce regardless of time of year.



## Facts

**Horticulturalist/Grower**  
Ecobain Gardens

**Location**  
Saskatoon, Saskatchewan, Canada

**Segment**  
City Farming

**Crop**  
Leafy greens, cut microgreens, herbs

**Solution**  
Philips GreenPower LED production module

**Philips LED Horti Partner**  
Paul Boers Ltd.

- Results**
- Fast and consistent growth
  - High bio mass, aromatic and tasty, appealing coloration
  - Reduced energy consumption
  - Economized space usage