



Container Farm Solutions

2024

www.NuLeafFarms.ca

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Introduction

Growing a Legacy of Sustainable Farmers for a Sustainable Future.



Food Security

Steady supply,
Reduced dependency



Building Resilience

Economic
development



Innovative Farming

Tailored solutions,
Sustainable practices.



Cultivate communities by empowering the next generation of farmers with the knowledge, technology, and skills they need to succeed.

Problem

The Cost of Feeding A Hungry Planet:

Traditional agriculture methods creating soil erosion, water depletion, and loss of biodiversity resulting in the overuse of chemical inputs and deforestation.

Climate Vulnerability:

Unpredictable weather patterns makes traditional agriculture highly susceptible to the impacts of climate change, including risks of droughts and floods.

Economic Instability:

Rising input costs, government policy, complex supply chains and an aging work force are driving higher food prices and creating higher levels of food insecurity.

Resource Inefficiency:

Conventional farming methods can be inefficient in resource use, requiring large amounts of water, land, fertilizers and pesticides, all of which can lead to degradation of natural ecosystems.

Traditional agriculture faces significant challenges:

weather risks, drought conditions, and rising costs of fertilizers, land, and transportation. These exacerbate the financial strain on farmers, making sustainable farming practices difficult to maintain.

Solution

We're growing the next generation of farmers by combining plant science with technology. **Providing all in one growing solutions to reduce food costs and protect the environment.**



90%
LESS

Water



85%
LESS

Land Foot Print



95%
LESS

Food Miles



90%
LESS

Food Waste

Why Container Farms

Farming a New Type of Field:

Container grow systems minimize traditional agriculture's ecological impact by preventing soil erosion and water depletion. Using soil-less mediums and recirculating water, they eliminate the need for harmful chemicals and deforestation, thus preserving biodiversity.

Year-Round Harvests:

Indoor container grow systems offer resilience against climate change by maintaining controlled environments, safeguarding against weather extremes like droughts and floods, and ensuring consistent yields.

Cutting Costs, Growing Profits:

By providing predictable yields and reducing reliance on market-sensitive inputs like pesticides and fertilizers, container grow systems offer economic stability and lower financial risks for farmers.

Sustainable Growth Meets Sustainable Future:

Container grow systems enhance resource efficiency while enabling community based agriculture businesses. Growing entrepreneurs and local based food systems. Empowering communities by creating economic development, environmental stewardship and social responsibility.

Who We Are

Implementing comprehensive turnkey farm systems to empower farmers, enhancing community access to fresh and healthy food at the local level in neighborhoods globally.



2016

Founded In Calgary, Alberta



10K

Square foot research and demonstration facility



80

Years of experience delivering turnkey projects



605

Happy clients

What We Do

DESIGN



Determine the proper size and technologies to maximize the production and profits of every project.

BUILD



Construct, commission and start-up your farm so its ready for operations.

SUPPORT



24/7 remote monitoring, onsite training and post project support and optimization to take every project from seed to success.



Why NuLeaf Farms

Decades of Multi-Disciplinary Expertise:

With extensive experience in engineering, design, plant science, and agricultural business, NuLeaf Farms ensures each hydroponic farm is a testament to efficiency and quality.

Tailored Consulting and Design Services:

Understanding that each customer's needs are unique, NuLeaf Farms offers personalized consulting and custom design services. This approach involves working closely with customers to develop planting and crop schedules that are aligned with their specific business requirements, whether it's a restaurant needing fresh herbs year-round or a large-scale production facility focusing on leafy greens. This customized service ensures that each hydroponic farm is optimized for the customer's success.

Innovative Crop and Nutrient Development:

Through rigorous R&D, NuLeaf provides advanced crop management and exclusive fertilizer recipes, enhancing yield and crop quality for every customer.

Remote Support Capabilities:

Equipped with remote monitoring and support, NuLeaf ensures expert assistance is always available, providing peace of mind and immediate help when needed.



40' Farm Specifications

Inputs, Outputs, Yield, and Financial Breakdown:

Understanding the cost of growing is essential to the success of any farm. Our estimates reflect the average performance of a new farm.

GROWING SPACE



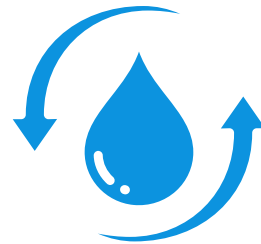
6630
plant ports

ENERGY OUTPUT



264 KWH
per day

WATER REQUIREMENTS



296 Litres
per day

OUTPUT HERBS



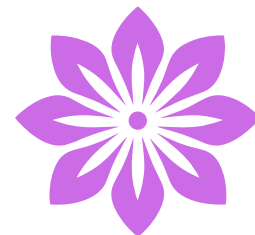
8-10 Tonnes
Turns: 12 per year
Average size: 100 grams

OUTPUT LEAFY GREENS














10-12 Tonnes
Turns: 12 per year
Average size: 150 grams

OUTPUT DWARF FLOWERING



10-12 Tonnes
Average size: 17 grams
per individual fruit

Product Offering

40' Container Farm	40' X 8' Container Automated	40' X 8' Container Without Automation
Price (CAD)	\$277,000	\$249,000
Hardware For Growing Plants LED Grow Lights, Automated lighting system, Just Vertical Patented Grow Towers, Propagation System (Rack, Trays, Lights), Automated watering system, pH/EC meters and Irrigation system. All growing hardware needed.		
Nutrient & Environmental Sensors and Controllers An application enabled environment and nutrient water sensing and dosing system		
Support and Training 52 hours of support and 3 training sessions on planting, transplanting and harvest the plants in the farm		
Project Management Project Management, design and consulting (estimated at 40 hours)		
General Hardware The Container, HVAC, Electrical and Water Installation		
Supplies One year worth of nutrients, seeds and starter plugs		

- Note that the following is not included:**

Site Prep, Taxes, Duties, Shipping and travel expenses for project services

NuLeaf Farms Inc. Standard Terms and Conditions Apply

40' Farm Financial Model

Plant Ports	Estimated Revenue / Plant	Total Estimated Revenue/month	Total Revenue/year
6630	\$2.50/plant	\$16,575	\$199,000

Expense Type	Rate	Yearly Cost
Electricity	\$0.20 / KWH **	\$19,272
Grow Plugs	7000 / month @ \$0.15	\$12,600
Nutrient	\$146/month	\$1,752
Remote Monitoring by NuLeaf	\$200/month	\$2,400
Labour	1FTE/Farm/Month @ \$20/hr	\$41,600
ESTIMATED OPERATING COST		\$77,624



40' Farm Return on Investment

Yearly Revenue	Yearly Cost	Yearly Savings	Return on Investment
\$199,000	\$77,624	\$121,376	2.2 years

Financial Assumptions

- Production estimated in a standard containerized system with a lettuce crop, with average growing cycle of 4 weeks.
- \$2.50 / plant is an estimated price based on a lettuce crop.
- Electricity estimated based on Calgary electrical rate of \$0.20 per KWH
- Costs exclude shipping of consumables.
- Labour estimated at 40 hours per week at \$20 per hour rate.
- Revenue and costs may vary based on geographic location and type of crop grown.



Social & Environmental Impact

Employment Opportunity

Approx. 1 full time resource

Litres of Water Save

850,000

Farmland Saved

3 Acres

Food Waste Reduction (kgs)

8,500

Waste CO2E (Kgs)

7,500

Transportation CO2 (Kgs)

19,000



20' Farm Specifications

Inputs, Outputs, Yield, and Financial Breakdown:

Understanding the cost of growing is essential to the success of any farm. Our estimates reflect the average performance of a new farm.

GROWING SPACE



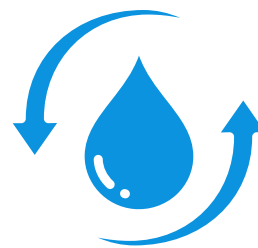
3120
plant ports

ENERGY OUTPUT



164 KWH
per day

WATER REQUIREMENTS



196 Litres
per day

OUTPUT HERBS



4-5 Tonnes

Turns: 12 per year
Average size: 100 grams

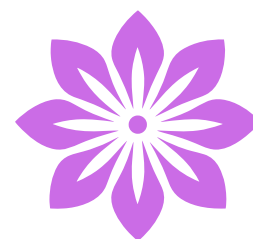
OUTPUT LEAFY GREENS



5-6 Tonnes

Turns: 12 per year
Average size: 150 grams












OUTPUT DWARF FLOWERING



5-6 Tonnes

Average size: 17 grams
per individual fruit

Product Offering

20' Container Farm	20' X 8' Container Automated	20 X 8' Container Without Automation
Price (CAD)	\$194,000	\$169,000
Hardware For Growing Plants LED Grow Lights, Automated lighting system, Just Vertical Patented Grow Towers, Propagation System (Rack, Trays, Lights), Automated watering system, pH/EC meters and Irrigation system. All growing hardware needed.		
Nutrient & Environmental Sensors and Controllers An application enabled environment and nutrient water sensing and dosing system		
Support and Training 52 hours of support and 3 training sessions on planting, transplanting and harvest the plants in the farm		
Project Management Project Management, design and consulting (estimated at 40 hours)		
General Hardware The Container, HVAC, Electrical and Water Installation		
Supplies One year worth of nutrients, seeds and starter plugs		

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20' Farm Financial Model

Plant Ports	Estimated Value* / Plant	Total Estimated Value/month	Total Estimated Sales/year
3120	\$2.50/plant	\$7,800	\$93,600

Expense Type	Rate	Yearly Cost
Electricity	\$0.20 / KWH **	\$11,972
Grow Plugs	3200 / month @ \$0.15	\$5,760
Nutrient	\$146/month	\$1,752
Remote Monitoring by NuLeaf	\$200/month	\$2,400
Labour	0.5 FTE/Farm/Month @ \$20/hr	\$20,800
ESTIMATED OPERATING COST		\$42,684



20' Farm Return on Investment

Yearly Revenue	Yearly Cost	Yearly Savings	Return on Investment
\$93,600	\$42,684	\$50,916	3.8 years

Financial Assumptions

- Production estimated in a standard containerized system with a lettuce crop, with average growing cycle of 4 weeks.
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- Electricity estimated based on Calgary electrical rate of \$0.20 per KWH
- Costs exclude shipping of consumables.
- Labour estimated at 40 hours per week at \$20 per hour rate.
- Revenue and costs may vary based on geographic location and type of crop grown.



Social & Environmental Impact

Employment Opportunity

Approx. 0.5 full time resource

Litres of Water Save

400,000

Farmland Saved

1 Acre

Food Waste Reduction (kgs)

4000

Waste CO2E (Kgs)

3500

Transportation CO2 (Kgs)

9000



Let's Grow Together



Contact – Ryan Wright



403-899-4218



**8030-11500 35 Street SE,
Calgary, AB**



Ryan.Wright@NuLeafFarms.ca



www.NuLeafFarms.ca