By Arturo Lopez

Green Futures Biofuel
Green Futures biofuel is a renewable energy and vertical farming company. We specialize in affordable and commercially viable vertical farming systems. We are looking at creating the world's first effective vertical farming leasing model and energy efficient vertical farms.
A vertical system that sprays the plant roots with a nutrient mix so that they get the correct quantities of nutrient and water and they also get good oxygen circulation and absorption to aid fast, healthy growth.
What can we grow

• Most fruit, vegetables, herbs and salad crops will thrive in the system. We have been revisiting older varieties to get a fuller flavour as the system gives a higher and more consistent yield even when using these varieties.
Progress

We have spent the last two years researching off grid aeroponic systems.

We purchased a small peace of land in the highland and islands, built a small polytunnel and conducted research on growing organic produce in a variety of systems.

We have worked with the highland and island business hub and small communities to implement modern off grid farming techniques.

We have been offered to pitch our findings and project at the EPIC open day on the 24th of September.

We have been allocated space within the polytunnels that are currently being constructed on campus. This will act as a showcase and reference point for customers and partners.
• Green Futures are trying to create an affordable Urban farming business to allow individuals to gain the ability to grow organic produce and overcome the uncertainty of Brexit.

• Once this process has been implemented green futures wish to create a commercially viable aeroponic system to improve current farming techniques.
Main Challenges

- Climate Regulation (Temperature and Humidity)
- Air Circulation depending on the system being used
- Logging of Data
- How to make it more commercial
Affordable Urban farming

• Current Urban farming equipment is unaffordable
• Being able to manufacture the right system for the individual or company
Customer Segments

- Urban growers
- We will be looking at targeting off grid communities, home owners (30+ and have their own garden and home)
- Retail Chains
- Independent Garden centres
- Farmers
- Schools
- Bars and restaurants
- Breweries
• Green Futures will provide educational events and thought leadership around plants, food and sustainability. We use innovative farming techniques as a backdrop for learning.

• Aquaponics, aeroponic, hydroponic Course and training

• School Programs

• Corporate events

• Selling the urban farming equipment online to a large number of growing enthusiasts.

USP – Leasing model and intensive marketing and advertising
Sales and marketing

• Customer retention

We are looking at engaging the customers through:

• Various multi channel marketing campaigns
• Email campaigns
• SEO
• Articles
• Blog writing
• Subscription blogs
• Education
• Training
• Competitions

• End goal – to create a community of urban growers
Innovative solution

• We are looking at creating a commercially viable Aeroponic system.

• We are looking at creating a system that is transportable and doesn't rely on heavy infrastructure.
Commercial Vertical Soilless Growing

- 90% Water Saving
- Space Efficient
- No Nitrate Run Off
- No Herbicide
- Low Labour Requirement
- 365 24/7 Production
- Eliminates Soil Based Pathogens
- High Return Crops on Low Return Soil
- Clean, Consistent Produce
- True Precision Farming
- Reduction in plastics
Partners

• Dents Farm – Private farm who have asked to be stockist of the produce

• University of Essex computer science and biological science have allocated space in their polytunnels for our hydroponic and aeroponic systems

• Highland and island enterprise has provided an extensive list of farmers with in Scotland who would partner with us.

• Kalsi plastic – Manufacturers

• Amtek plastics – Plastic moulding supplier

• Glideology – Prototype developers
Competition

• Aponic
• Lettus Grow
• Zip grow
• We are a values driven company
• We care about people, profit and planet.
• We can Do Good and Make Money
• We showcase the most sustainable technology and systems for food production
• We think that better education around sustainable food is essential for transforming our food system