

Job Description: Climate impact internship at Cultura Fresh

Introduction

Cultura Fresh (CF) is Cape-based hydroponic producer of leafy greens. Cultura Fresh's hydroponic production methods are particularly water efficient. In addition, the business has, during the course of 2021, installed a solar panel system in order to materially reduce the amount of conventional power consumed.

Cultura Fresh is looking for a energetic, go-getter to join our team for a fixed term to calculate the annual amount of CO₂ emission or CO₂e (carbon dioxide equivalent) avoided as well as its water savings in relation to land based farming methods.

Role

By the end of the internship period, the intern shall be expected to produce the following:

- A data set of CF's historical and projected annual CO₂e avoidance figure (allowing for the calculation of total and per unit figures); and
- A data set of CF's historical and projected annual 'water savings' (allowing for the calculation of total and per unit figures).

All data collected and work performed in pursuit of the above objective should be kept in a manner that would allow subsequent verification of its substantial accuracy by third party assurance providers.

The results should also lead to a system whereby the data sets can make use of CF's ongoing data collection systems in order to calculate and update its water efficiency and CO₂ avoidance figures at least on an annual basis with minimal effort.

All data to be confidential and only released at CF management discretion

Support and supervision

CF management will support the intern by:

- providing an understanding of the entire production process to enable the work to proceed in context;
- providing access to all required primary data and documentation for the calculation of water and energy usage data; and
- guiding the work with respect to the usage of conversion ratios and accepted methodologies utilized in the calculation of carbon and water footprints.

Preferred Qualifications

The preferred candidate will have a background in climate change, environmental studies or similar at a Masters or Phd level.

Background

Corporate Carbon Footprint & Carbon Avoidance

Historically CF relied on grid power for its activities, backed up by on-site generating capacity. During the course of 2021 the company installed a solar panel array in an effort to reduce its reliance on the formal grid/ generator set up. It wishes to confirm and calculate these expected savings or 'avoided CO₂' in order to confirm and calculate the following:

- Its historical CO₂e footprint which arises from its consumption of diesel (for truck, vehicle and generator), petrol (for vehicle, bush cutter & sprayers) and electricity supplied by Eskom.
- The amount of CO₂e avoidance arising from the installation of solar panels on its buildings vis-à-vis its historical carbon footprint.

Water Efficiency

CF believes its production method is extremely water efficient when compared to conventional agricultural methods. It wishes to confirm and calculate this figure in order to confirm and calculate the following:

- A confirmation of a recognized per unit / ml water consumption figure for conventional South Africa (Western Cape) iceberg salads and butter lettuce,
- A per unit/ ml rate of water consumption for iceberg salads or butter lettuce at CF's Klapmuts operation using historical water abstraction data, production & sales data,
- The later calculation would need to account for the varying per unit/ ml rates that are likely to arise from the differing climatic conditions throughout the year. Preferably there should be a 'winter' and a 'summer' unit figure calculated on the basis of historical averages.
- The calculation of this figure and its comparison against an accepted / recognized per unit / ml water consumption figure for conventional South Africa iceberg salads and butter lettuce, should allow CF to calculate its historical and ongoing 'water savings' on an annual basis

Expected duration of the internship

3 month, start date negotiable

Remuneration

15k per month

Other

Must have own transport and be willing to travel to Cultura Fresh when required