

# FARMSCRAPERS

by  
**WHOLE  
FOODS  
MARKET**

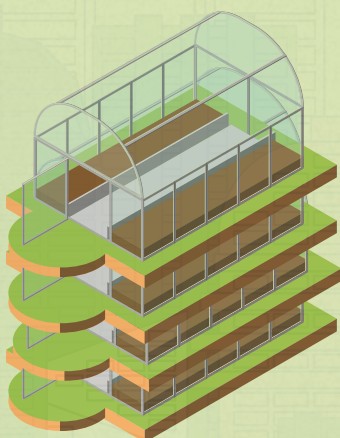


## What is a Farmscrapper?

Farmscrapers are the new alternative to agricultural space in urban areas. They aim to increase the amount of useable farmland by utilizing vertical square footage. They are skyscrapers that are repurposed, and dedicated to farming.

## How is this possible?

Each floor will essentially be it's own greenhouse, not much unlike the graphic shown on the right. The farmscrapper will also rely on hydroponic agriculture, as opposed to traditional, soil agriculture.



## Brief History

1930s - Hydroponics terms coined by W.F Gericke (U.C. Berkley). He experimented and popularised the practice of growing plants in a water solution.

2007 - Over 200 Million pounds of hydroponically grown tomatoes are sold by EuroFresh.

2017 - Canada dedicated hundreds of acres to hydroponic greenhouses.

2070 - The FDA (Food & Drug Administration) notices a huge spike in toxins in natural soil.

2119 - Hydroponics takes over 70% of the agriculture industry.

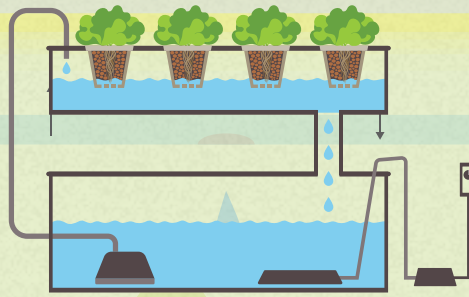
## Why Hydroponics?

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### Less Water is Used



- About 10%-15% compared to traditional farming.
- The water used can also be recycled, reducing even more water consumption!



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### No Soil Needed



- With soil not being a requirement, this means our plants can pretty much grow anywhere hydroponically!



- With pollution being at an all time high in 2115, the FDA deemed natural soil to be too toxic for agriculture.
- Not having soil also means we don't have to rotate crop to prevent erosion.

### Fresh Veggies



- Hydroponically grown plants grow up to 3 times faster than traditionally grown plants. This means we can harvest more often, and all year round.

*Local Fresh Produce*



- Hydroponics gets rid of the need for pesticides on our food. Pesticides are not absorbed because there is no soil.

### Cost Efficient



- With LED lights being almost costless, maintenance, repair and upkeep remains inexpensive. The costs of materials is how this business model is sustainable.



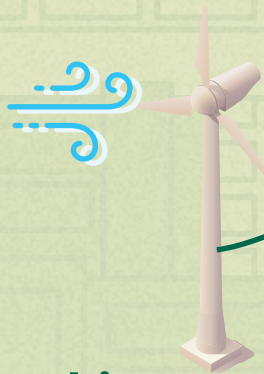
- As the water gets recycled, so do the unused nutrients in the water. Almost nothing goes to waste in hydroponic systems, especially the nutrients. These nutrients are the reason why produce is able to grow so much faster, and they're only getting cheaper.

## The Farmscrapper

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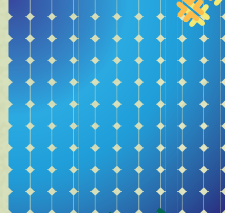
### Wind Turbines

- The top of our building will be heavily decorated with wind turbines.
- This will help generate even more energy, furthering its self sustainability.



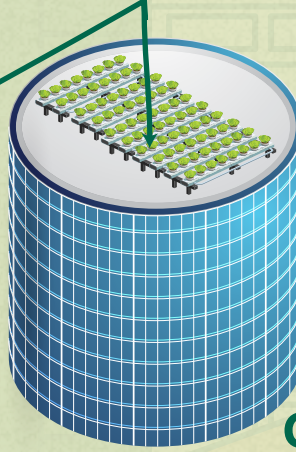
### Solar Panels

- Our building will be made out of solar panels, rather than just glass and windows.
- This will further reduce maintenance costs for electricity.
- The panels also reflect a lot of the sun's harmful rays.



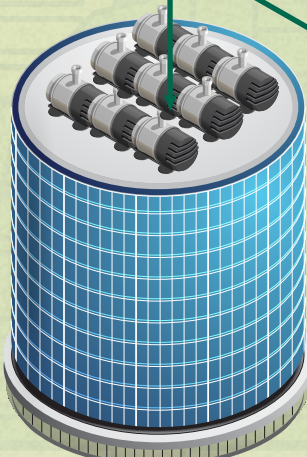
### Greenhouses

- As previously stated, every floor will be laid out like a giant greenhouse.
- This will serve as the main function/utility of our building, the Farmscrapper



### Generator Floor

- We need a place to store all of this extra energy we are collecting.
- The Generator Floor will store numerous generators capable of maintaining the building's power up to 1 month.



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