

DATA SCIENCE AND VERTICAL FARMING

CAN ARTIFICIAL INTELLIGENCE
CHANGE THE LANDSCAPE OF
AGRICULTURE?



JOE COWELL



MAJOR VERTICAL FARM START-UPS



BOWERY

inFarm

Oishii



IMPORTANT VARIABLES

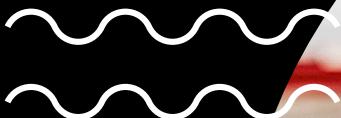


- LIGHT
- ATMOSPHERE
- TEMPERATURE
 - WATER
 - NUTRIENTS





COMPUTER NETWORKS



- COMPUTER VISION
- CROP MONITORING
- HERBICIDE USAGE
- WATER MANAGEMENT
- PREDICTIVE ANALYTICS



BOWERY FARMS



BENEFITS OF VERTICAL FARMING



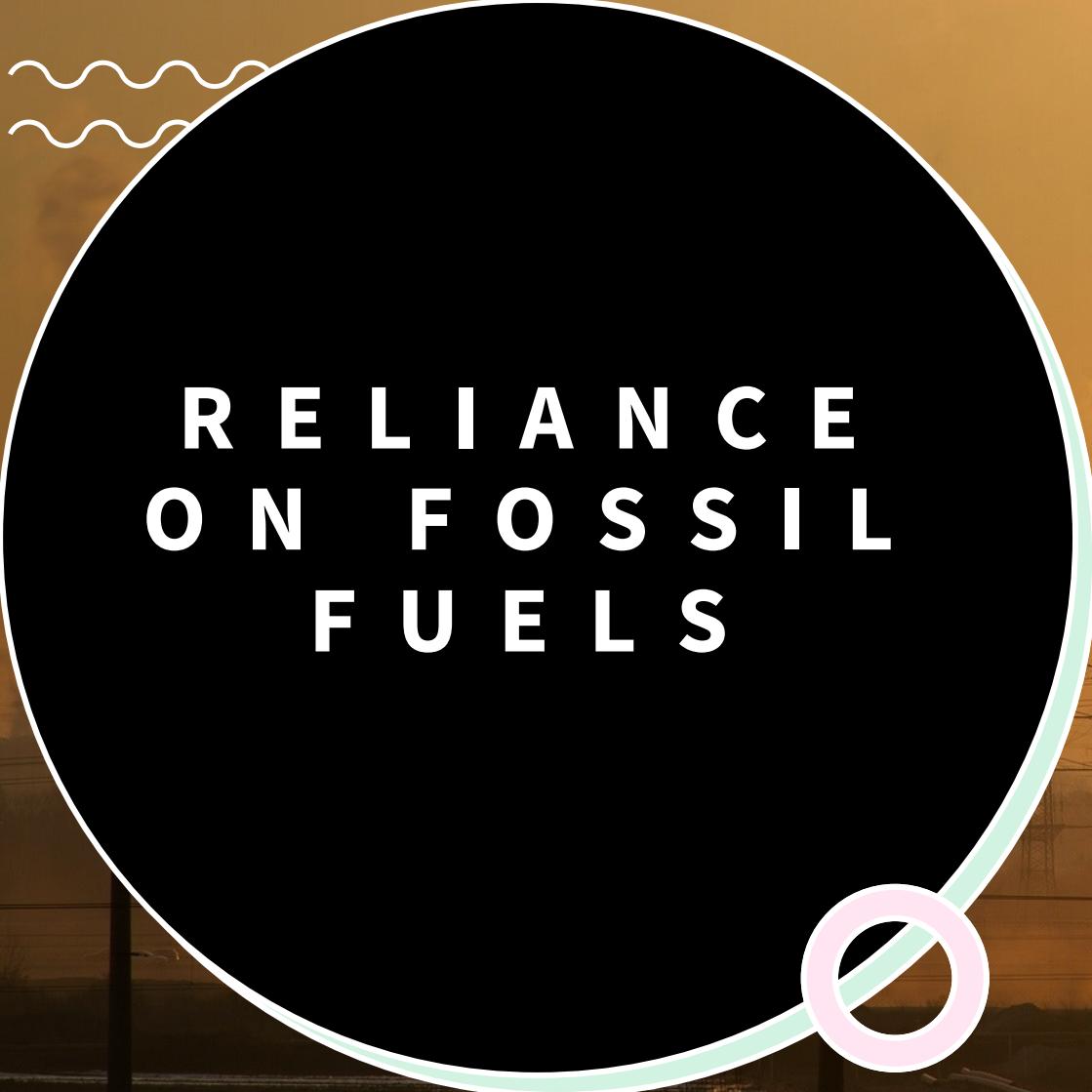
- YEAR-ROUND CROP ROTATION
- CONSISTENT QUALITY
- PREDICTABLE OUTPUT
- USES 95% OF WATER COMPARED TO TRADITIONAL FARMING
- 350X HIGHER YIELD PER SQUARE YARD COMPARED TO TRADITIONAL FARMING



'CONTAINER - TO - TABLE'

- LESS FOOD WASTE
- LESS PACKAGING
- LESS FUEL CONSUMPTION





RELIANCE
ON FOSSIL
FUELS



WHAT NEXT?

SOMETHING LIKE
OPENAG (MIT)?







RESOURCES

- [HTTPS://WWW.RESEARCHGATE.NET/PUBLICATION/321186650 FUTURE FOOD-PRODUCTION SYSTEMS VERTICAL FARMING AND CONTROLLED-ENVIRONMENT AGRICULTURE](https://www.researchgate.net/publication/321186650_FUTURE_FOOD-PRODUCTION_SYSTEMS_VERTICAL_FARMING_AND_CONTROLLED-ENVIRONMENT_AGRICULTURE)
- [HTTPS://MEDIUM.COM/@JPP440/VERTICAL-INDOOR-FARMING-AI-REVOLUTION-IN-AGRICULTURE-EF6D32CA256](https://medium.com/@jpp440/vertical-indoor-farming-ai-revolution-in-agriculture-ef6d32ca256)
- [HTTPS://BOWERYFARMING.COM/ARTIFICIAL-INTTELLIGENCE-BOWERY-FARMING/](https://boweryfarming.com/artificial-intelligence-bowery-farming/)

