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Reaching Out On Farming: Operation R.O.O.F.

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Problem
Attaining fresh produce can be difficult in Worcester, MA.

Background
68% of Americans are overweight
Low income causes unhealthy food to be more readily available
Food often travels 1500 to 2500 miles to the consumer
Due to this, food is engineered for hardiness, rather than nutrition
50% of the produce we grow is lost in transport

Proposed Solution
Build a greenhouse on a residential building in Worcester, MA

Implementation
Build a 100 by 25 foot greenhouse on a large residential building.
The greenhouse must withstand 50 mph wind
Provide a surplus of light: more than 2000 foot-candles per plant
8 hours of sunlight/day
Use hydroponics instead of soil
Greenhouse serves as roof installation.

Measurement of Success
Number of people fed by greenhouse will determine if it is a success
What proportion of food a family consumes is from the greenhouse.
If the greenhouse pays for itself, then it is a financial success

Results/Outcomes
Be able to provide food throughout the year
Project will pay for itself within 5 years
Higher quality food than imported produce
Lower cost than transported products

References