



ECOFRESH

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Mission Statement

EcoFresh grows high-quality, sustainable crops with innovative vertical farming, delivering fresh produce to markets and communities.



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Business Description

AT ECOFRESH, WE DON'T JUST GROW CROPS
WE GROW A SUSTAINABLE FUTURE



Greenhouse Renovations

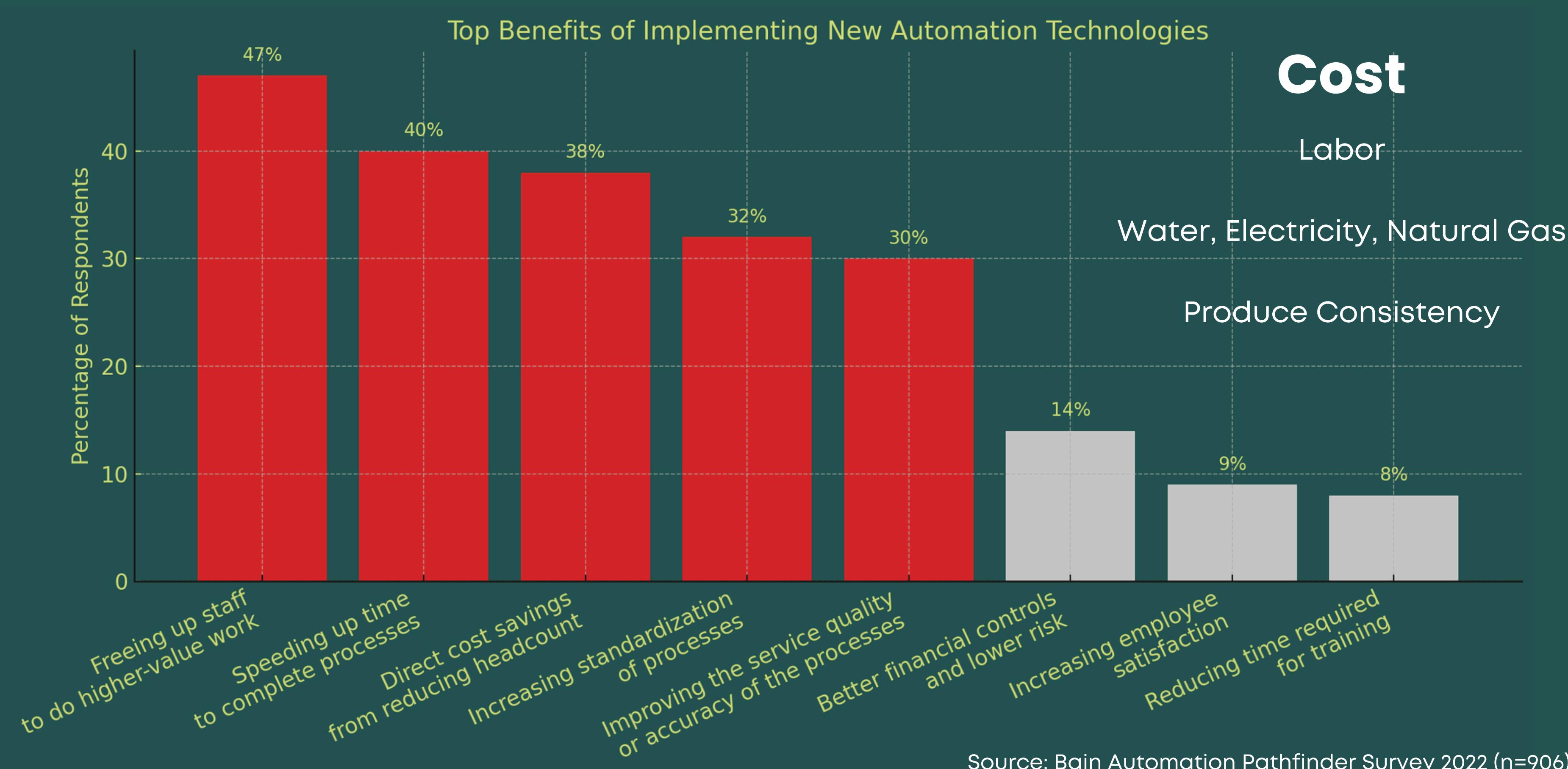
Water Sourcing

Vertical Farming

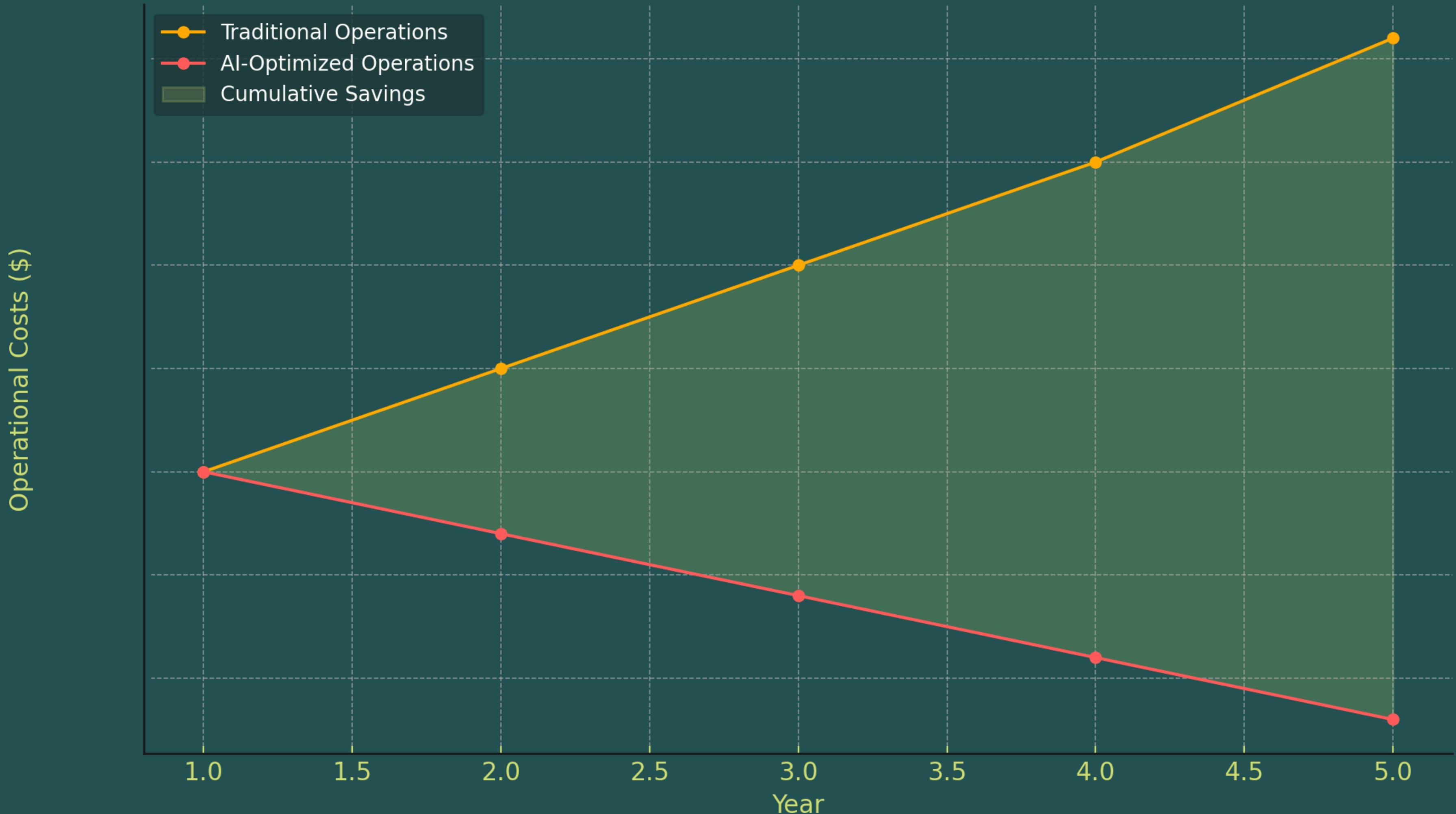
Harvesting and Distribution

AI Predictive Model

Why AI & Automation?



Projected Cost Savings with AI in Vertical Farming



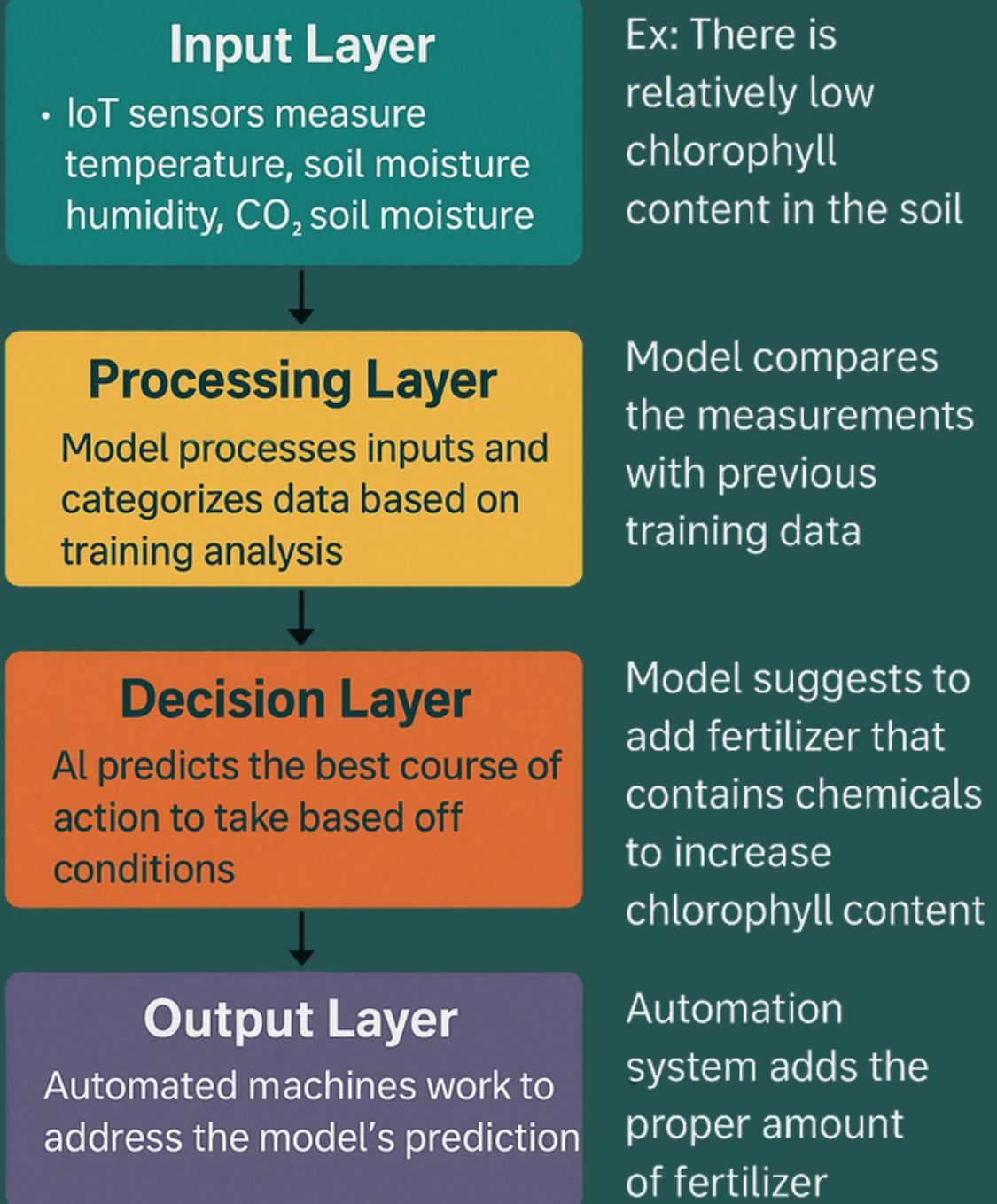
How it Works

Our model analyzes sensor data to predict plant health in real time.

Based on these predictions, it automatically adjusts water, light, and nutrients—keeping crops healthy while minimizing waste.

```
# Predict action based on new environmental conditions  
  
new_conditions = np.array([[30, 27, 24, 60, 220, 6.5, 30, 20, 18, 45,  
0.85]]) # Example values  
  
predicted_health = model.predict(new_conditions)  
  
# output tree  
  
print(f"Predicted Plant Health Status: {predicted_health[0]}")
```

AI Decision-Making for Vertical Farming



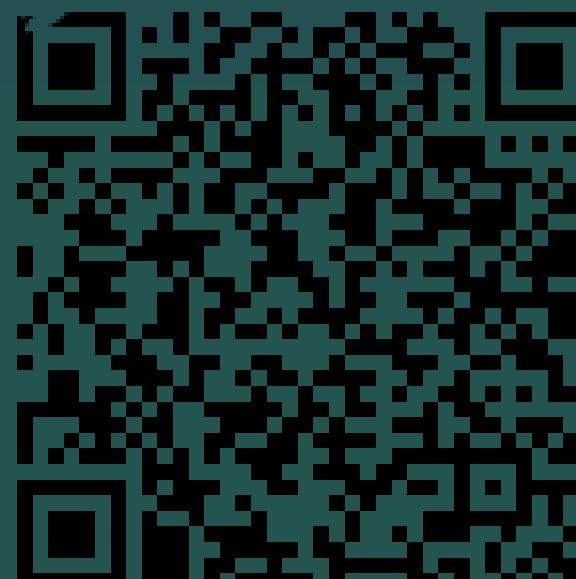
Training Data & Model

Plant_ID	Soil_Moisture	Ambient_Temperature	Soil_Temperature	Humidity	Light_Intensity	Soil_pH
1.0	27.52110877	22.24024536	21.90043536	55.2919039	566.1728051	5.581954516
1.0	14.83565615	21.70676328	18.68089194	63.94918051	596.1367212	7.135704906
1.0	17.08636197	21.18094556	15.39293913	67.83795649	591.1246268	5.656852249
1.0	15.33615608	22.59330194	22.7783935	58.19081101	241.4124764	5.584522687
1.0	39.82221603	28.92900108	18.10093728	63.77203577	444.4938296	5.919706876
1.0	29.20834842	24.36420869	22.5515083	46.39281145	496.2330398	6.157930728
1.0	16.35140495	23.02284948	17.95034782	56.90621179	454.6392144	7.075570016
1.0	33.30769696	20.19918572	16.29822055	56.32621966	455.6989746	6.105038904
1.0	12.72272609	25.46764547	16.6930635	47.54417466	635.0570337	6.487871877
1.0	13.24464144	27.63686533	23.62016942	65.6157854	393.2477085	5.580117097
1.0	24.99896013	25.3906236	22.67841216	56.8243402	482.2509998	6.564245676
1.0	31.60661098	23.99464808	16.14826725	58.53127733	763.5381969	6.278609362
1.0	23.52604561	19.00049156	22.38466908	57.75413529	436.3746794	7.323472975
1.0	21.53529606	19.7396999	19.52594533	47.50486028	724.1481607	6.73844159
1.0	23.78048558	26.4907316	17.82397397	45.87979095	561.1187449	5.832179314

Full Data Set

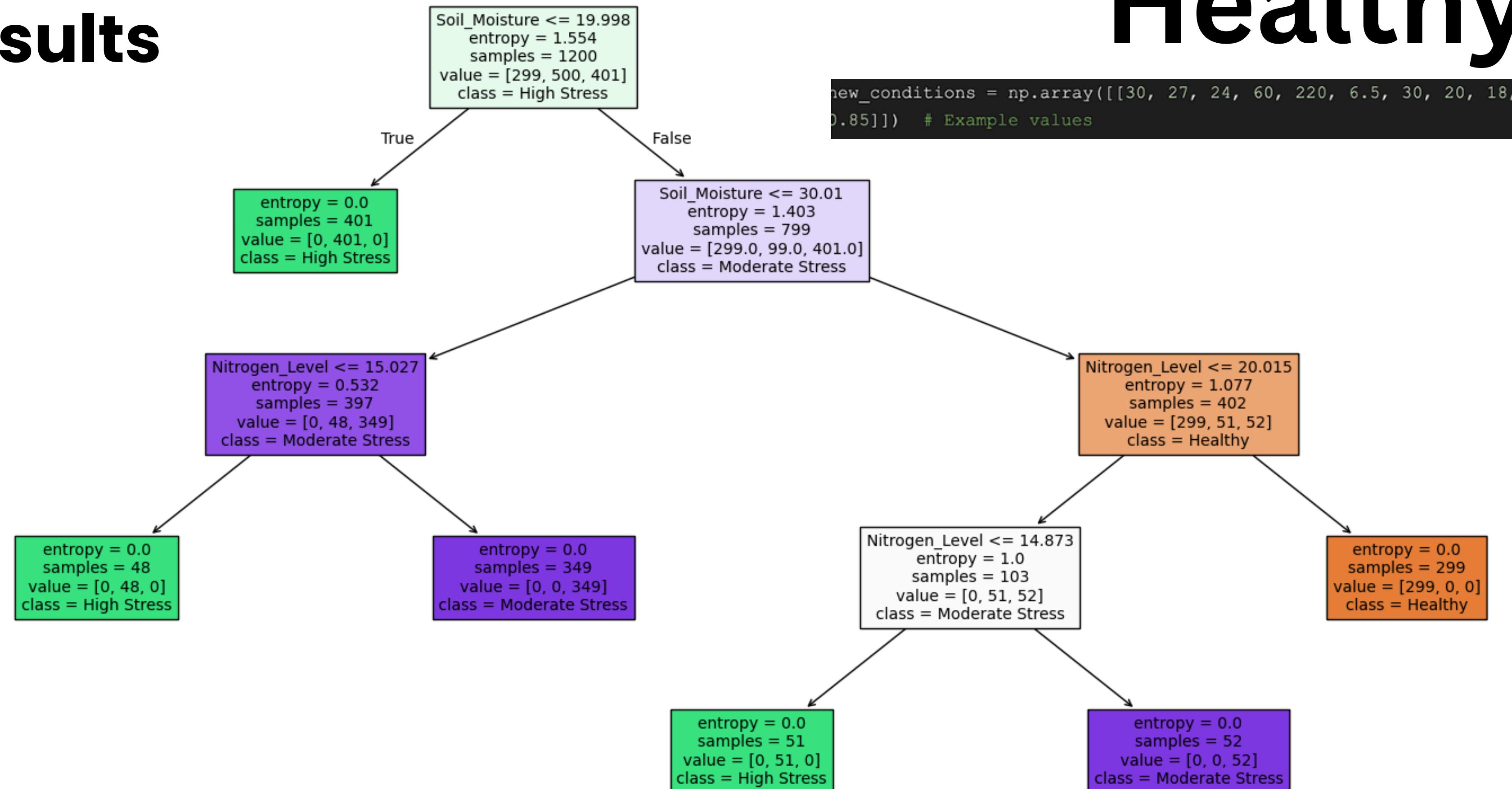


*Machine Learning
Model*



Trial Results

Plant Health Decision Tree

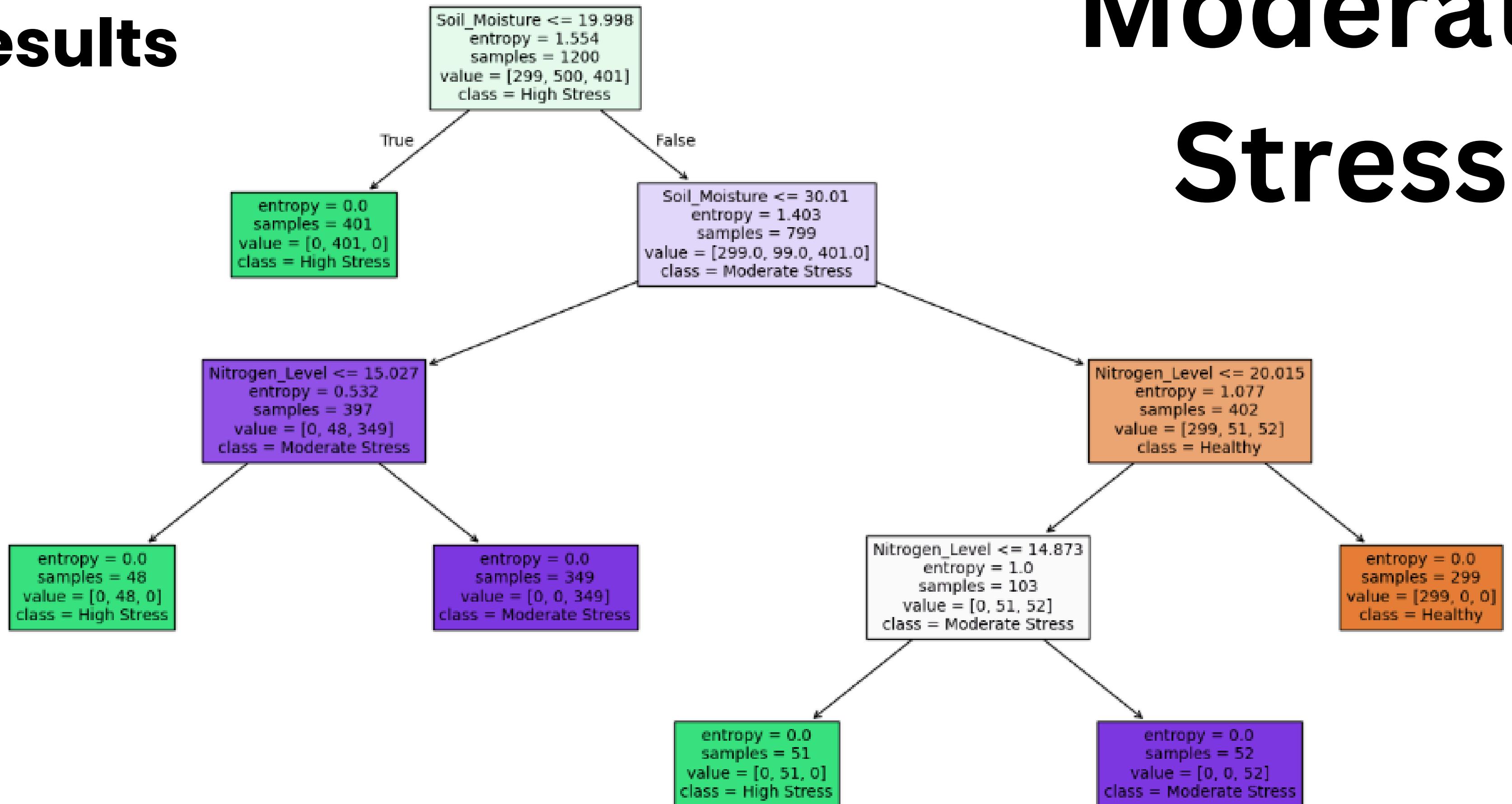


Healthy

```
new_conditions = np.array([[30, 27, 24, 60, 220, 6.5, 30, 20, 18, 45,  
0.85]]) # Example values
```

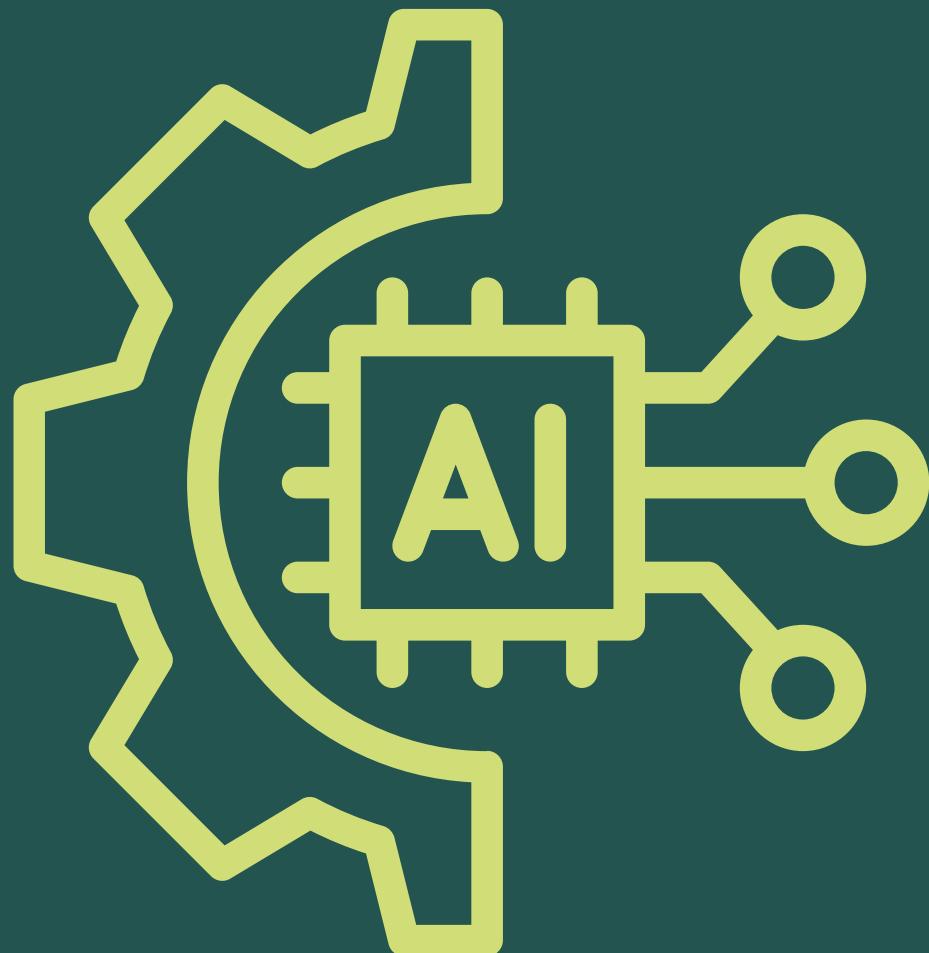
Trial Results

Plant Health Decision Tree



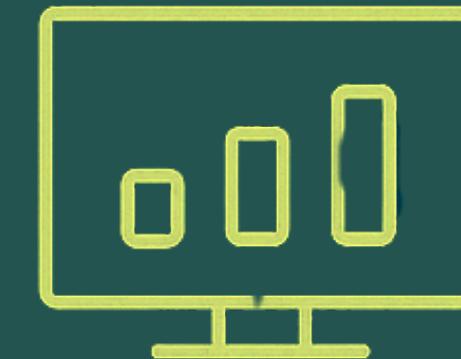
Moderate Stress

AI and Automation



Real-Time IoT Monitoring

Tracks moisture, nutrients, temperature, and light levels across all grow zones



Staff-Friendly Dashboard Interface

Allows manual sensor input and provides AI-driven growing suggestions



Automated Irrigation & Fertilization

Delivers precise water and nutrients to each plant based on live data



Dynamic Climate Control

Adjusts lighting, humidity, and energy use to reduce waste and boost yield



Location

High Demand

Strategic Placement

Eco-Conscious Alignment

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Distribution



Reliable Distribution



Scalable Locations

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Pricing Strategy

Product	EcoFresh Price	Retail Price	Savings	Crop Yield
Leafy Greens (Lettuce, Spinach, Kale, Arugula, etc.)	\$3.50-\$4.00/lb	\$4.00-\$5.50/lb	\$0.50-\$1.50/lb	30,000 lbs/yr
Herbs (Basil, Cilantro, Mint, Parsley, etc.)	\$6.50-\$8.00/lb	\$6.00-\$9.00/lb	Up to \$1.00/lb	4,500 lbs/yr
Microgreens (Broccoli Sprouts, Radish Shoots, Sunflower Greens, Pea Shoots, etc.)	\$20.00-\$30.00/lb	\$25.00-\$40.00/lb	At least \$5.00/lb	10,000 lbs/yr
Strawberries	\$5.50-\$7.00/lb	\$6.00-\$9.00/lb	Up to \$1.50/lb	2,500 lbs/yr



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MANAGEMENT TEAM



Dhanush Chittaluri
CMO



Rishabh Railkar
COO



Suki Elan
CFO

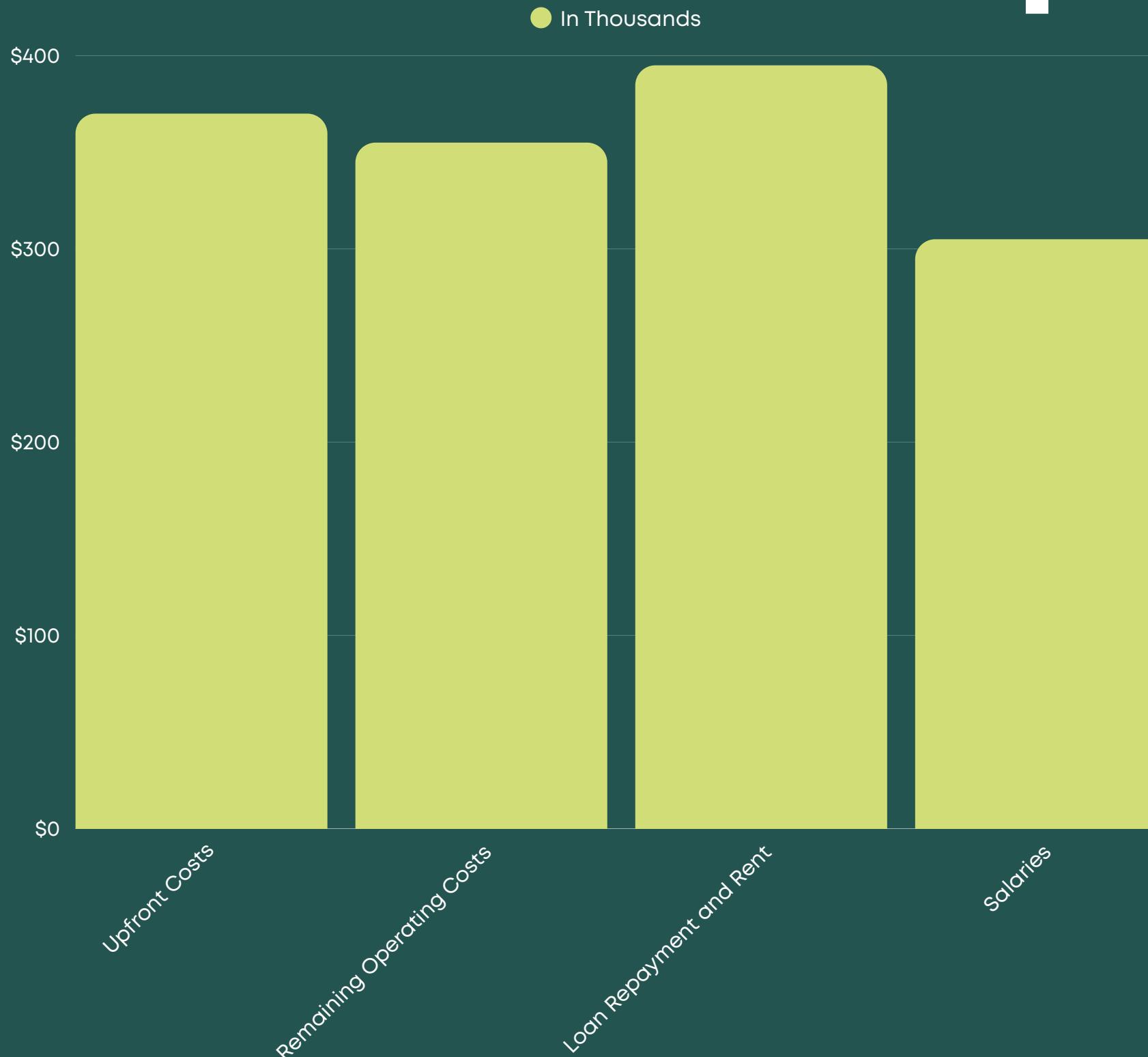


Ethan Manuel
CTO





Expenses

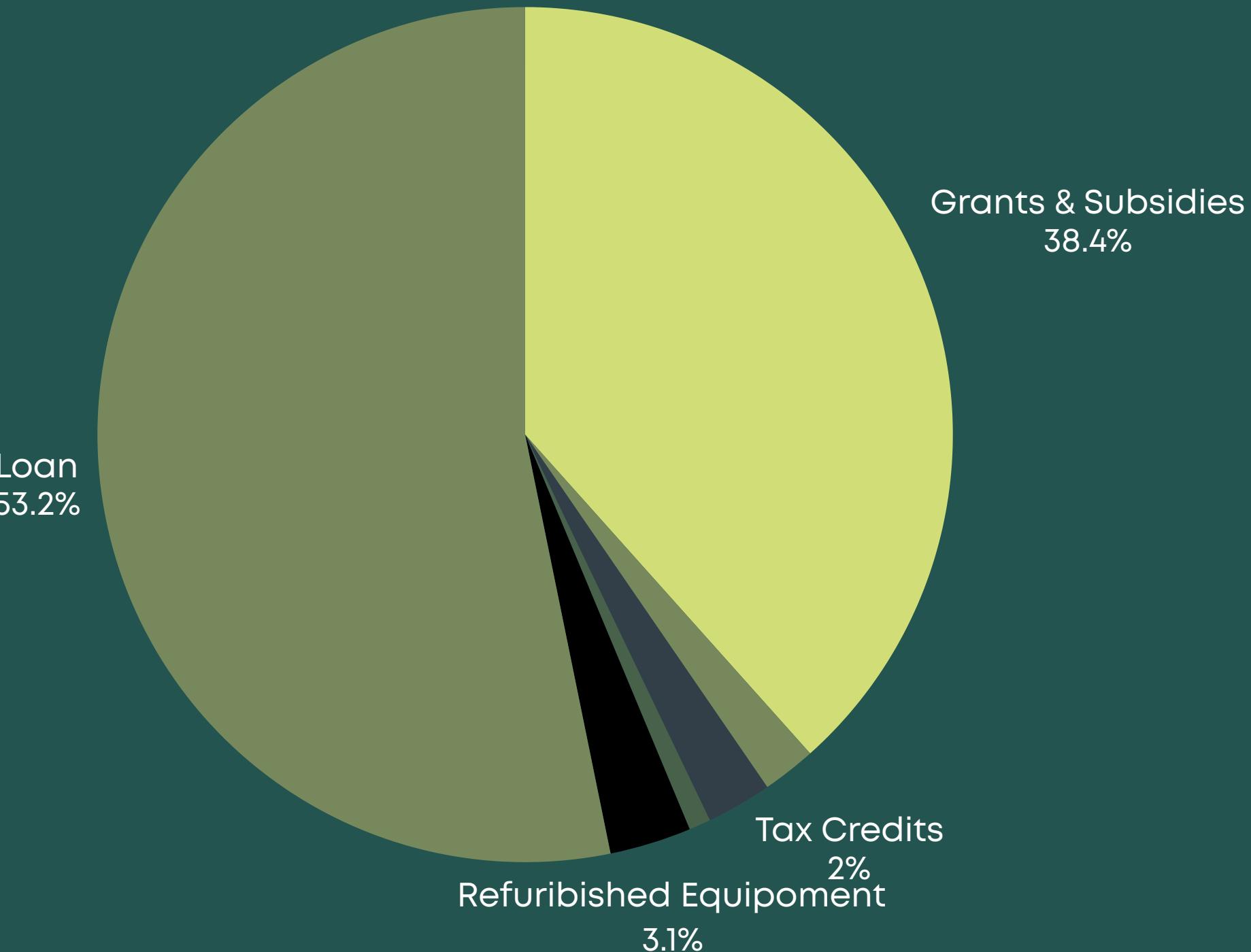


Role	Number of Staff	Annual Salary (\$)	Total Cost (\$)
Greenhouse Technicians	3	\$50,000–\$60,000	\$150,000–\$180,000
Delivery Personnel	2	\$40,000–\$50,000	\$80,000–\$100,000
Administrative Staff	1	\$45,000–\$55,000	\$45,000–\$55,000
Total Salaries	6	-	\$275,000–\$335,000



Funding Request

Grants/Subsidies	\$300,000–\$400,000
Equipment Discounts	\$15,000–\$30,000
Energy Rebates	\$5,000-\$10,000
Tax Credits	\$12,000 - \$25,000
Refurbished Equipment	\$18,750–\$37,500
Total Potential Savings	\$350,750–\$502,500
Loan	~\$485,000





Year 1 Financials

Revenue

Product	Price	Crop Yield	Revenue
Leafy Greens	\$3.50-\$4.00/lb	30,000 lbs/yr	\$120,000
Herbs	\$6.50-\$8.00/lb	4,500 lbs/yr	\$31,500
Microgreens	\$20.00-\$30.00/lb	10,000 lbs/yr	\$250,000
Strawberries	\$5.50-\$7.00/lb	2,500 lbs/yr	\$16,250

Balance Sheet

Upfront Costs (After Savings)	~\$0
Remaining Operating Costs (After Savings)	\$263,000 - \$337,000
Loan Repayment and Rent	~\$395,000
Revenue Projections	\$417,750
Net Income	\$(231,000) - \$(305,000)

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Predicted Financial Highlights

Assuming 25% Growth in Sales	FY1	FY2	FY3
Total Annual Sales/Revenues	~\$417,750	~\$522,000	~\$653,000
Net Income (End of Year Amounts)	\$(231,000) - \$(305,000)	\$(188,000) - \$(268,000)	\$108,000 - \$188,000
Cash Flow (End of Year Amounts)	Negative (Revenues < Expenses)	Negative (Revenues < Expenses)	Positive (Revenues > Expenses)



Operating Agreement

Founders

Investors

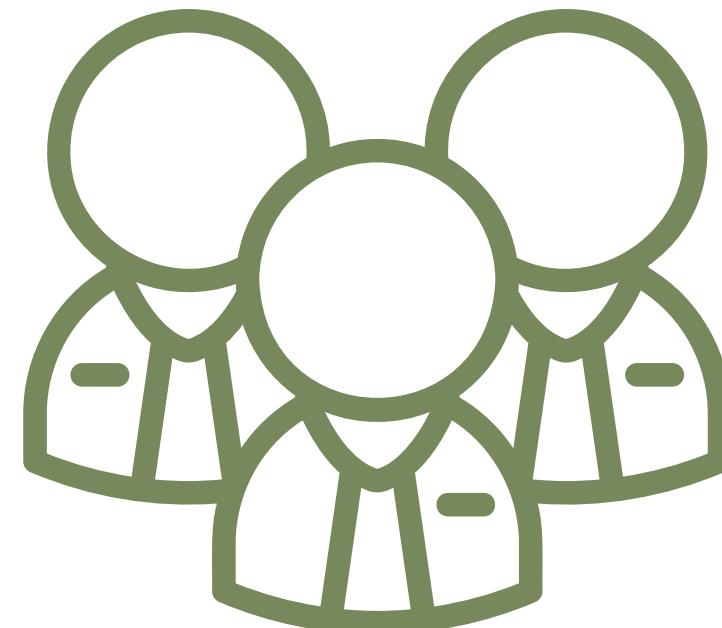
Employees



60%



30%



10%



Strengths

Vertical farming + AWG = low land, low water

Year-round fresh produce

Reduced emissions from local delivery

Meets rising demand for eco-friendly food



Weaknesses

High upfront cost of tech systems

Still building brand recognition

System downtime risk from tech dependence



Opportunities

Demand for sustainable food is accelerating

Government grants + green-ag funding available

Partnering with schools, stores, and restaurants expands reach

Threats

Established giants like AeroFarms already in market

Industry is becoming more crowded

Rapid innovation is needed to stay competitive



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Competitive Analysis

Feature	EcoFresh	AeroFarms	Plenty
Stable Water Accessibility	✓	✗	✗
Delivery Time	Within 24 Hours	1-3 Days	2-5 Days
Scalability	High	High	High
Resource Savings	90% Less	75% Less	60% Less
Local Production	NYC-Based	Regional Rural Area	Regional Rural Area

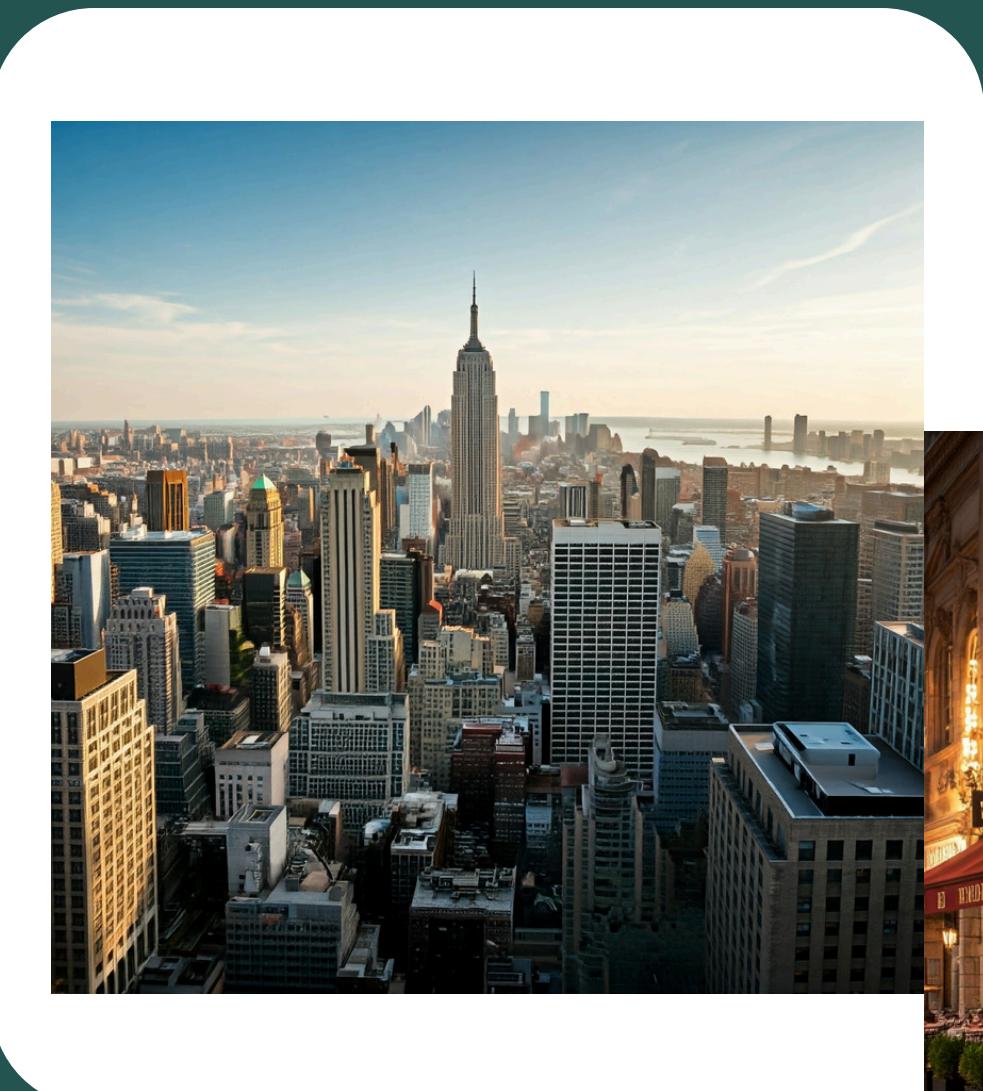


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Target Market

Market Growth

- Vertical Farming
- Greenhouse Technologies



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Marketing Strategy



Social Media



Partnerships



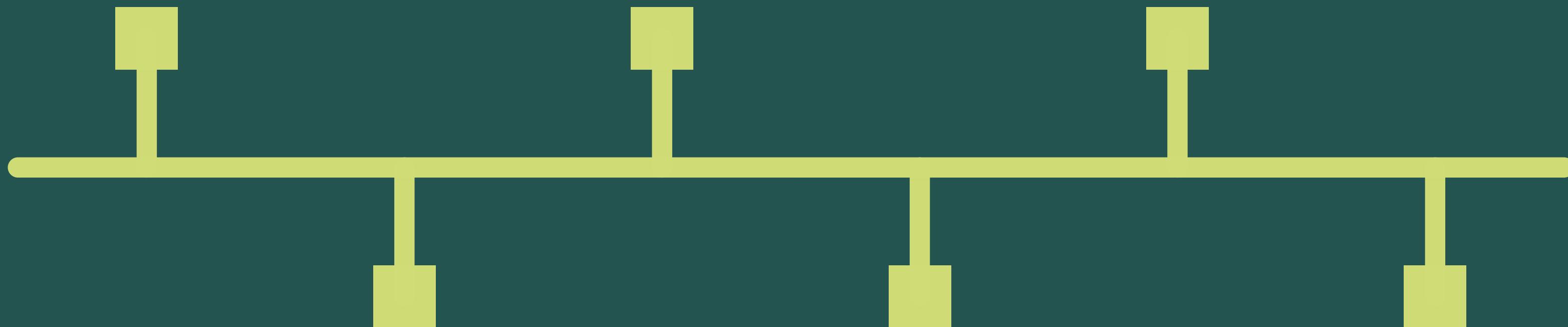
Community Engagement

Marketing Timeline

Month 1:
Launch social media ads & start outreach

Month 3:
Host farm tours & sponsor local events

Month 5:
Launch customer loyalty program & share testimonials



Month 2:
Begin product sampling & wholesale incentives

Month 4:
Expand digital reach & secure 25+ partners

Month 6:
Build community partnerships & plan for expansion

